

2.06

VOL. XXXVI. — No. 8.

AUGUST 1959.

Monthly
Bulletin
of the International
Railway Congress Association
(English Edition)





“DELTAIC”

This 3,300 h.p. locomotive built by The English Electric Company is the most powerful single unit diesel electric in the world, and it has successfully come through an extensive trial period on British Railways.

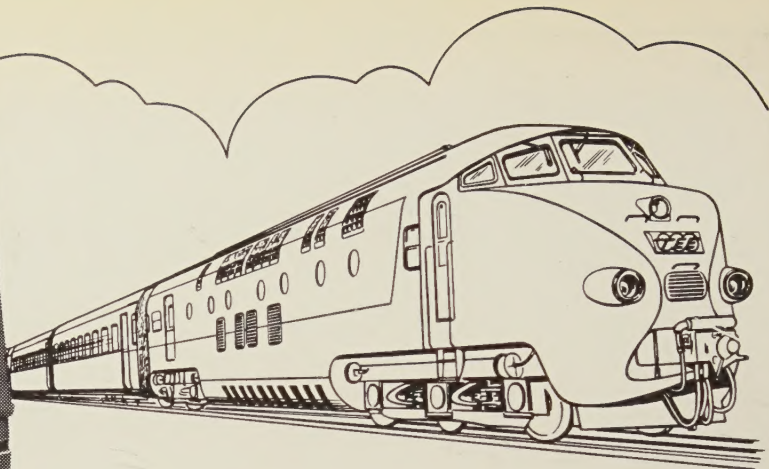
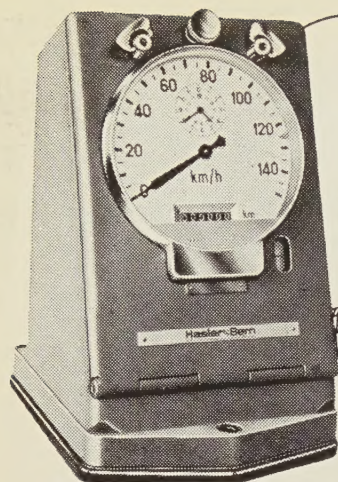
It is fitted with twin 18-cylinder Napier Deltic Engines, and



BRAKE EQUIPMENT

which will be fitted also to the 22 new locomotives of this type to be supplied by The English Electric Company for service on the East Coast Route of the Eastern, North Eastern and Scottish Regions of British Railways.

Westinghouse Brake and Signal Co., Ltd., 82 York Way, King's Cross, London, N.1



TELOC Speed Indicators and Recorders

Hasler^{SA} Berne

are appreciated throughout the world as they provide valuable information to the traffic Manager for the reorganisation and speeding up of railway services. TELOC instruments have, in fact, recently been installed on the Trans Europe Express Trains operating between Switzerland and Holland.

Alphabetical Index of Advertisers

Firms :

Cockerill-Ougrée (S. A.)
 English Electric Company Ltd. (The)
 Ericssons (LM) Signalaktiebolag.
 General Electric Co. Ltd. (The)
 Hasler (A.G.)
 Lister Blackstone Rail Traction Ltd.
 Matisa Equipment Limited
 Metropolitan-Cammell Carriage & Wagon Co Ltd.
 Metropolitan-Vickers-GRS Ltd.
 Pressed Steel Co Ltd.
 S.A.B. (Svenska Aktiebolaget Bromsregulator)
 Siemens and General Electric Railway Signal Co. Ltd.
 S.K.F. (Société Belge des Roulements à Billes)
 United Steel Cl^{es} Ltd. (The)
 Westinghouse Brake & Signal Co., Ltd.

Specialities :

— Steam and Diesel locomotives.
 III Railway electrification.
 — Railway signalling.
 V Electric traction equipment.
 II Speed indicators and recorders.
 VI Diesel electric locomotives.
 — Permanent way equipment.
 — Lightweight railway coaches. Diesel locomotives.
 — Signalling equipment for railways.
 IV Wagons.
 — Automatic slack adjusters.
 VII Signalling equipment.
 — Axleboxes.
 VIII Railway materials.
 I Railway signalling. Brakes.

still in the lead



*One of the 25 kV A.C. multiple train units
in service on the Southend-Tilbury line.*

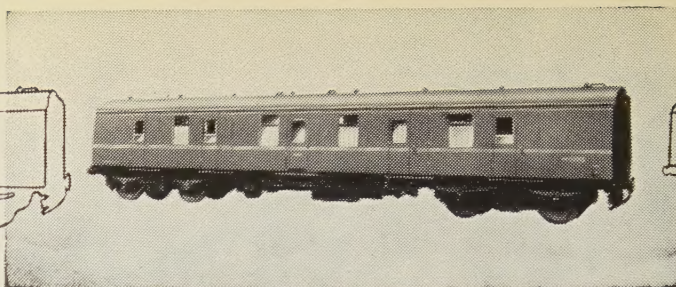
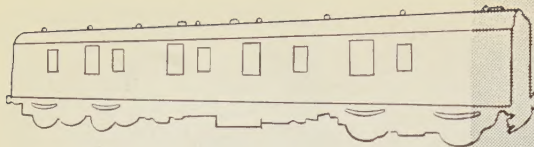
The first main-line diesel-electric locomotive delivered under the British Railways Modernisation Plan was an 'ENGLISH ELECTRIC' 1,000 h.p. unit.

Now 'ENGLISH ELECTRIC' equip the first 25 kV A.C. multiple unit trains built by British Railways.

'ENGLISH ELECTRIC'

in association with :

VULCAN FOUNDRY · ROBERT STEPHENSON & HAWTHORNS



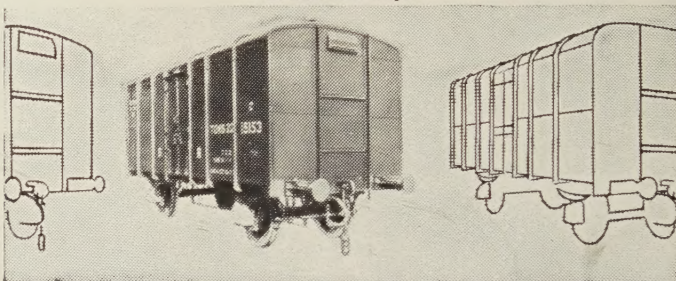
The 58-foot Gangwayed Standard Brakevan, supplied by Pressed Steel to British Railways.



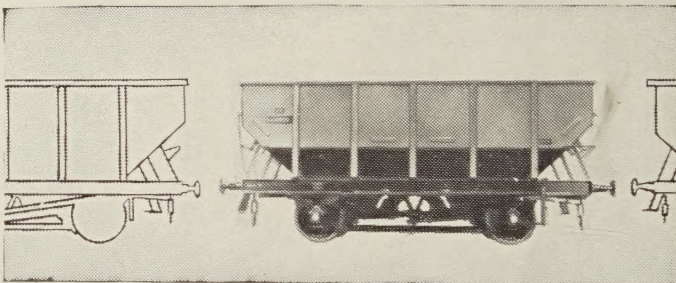
A train 300 miles long

In the last eight years, Pressed Steel have produced enough railway rolling stock to make a train over 300 miles long. Rolling stock of all types, for all gauges, at home and overseas. You see some of these carriages and wagons opposite.

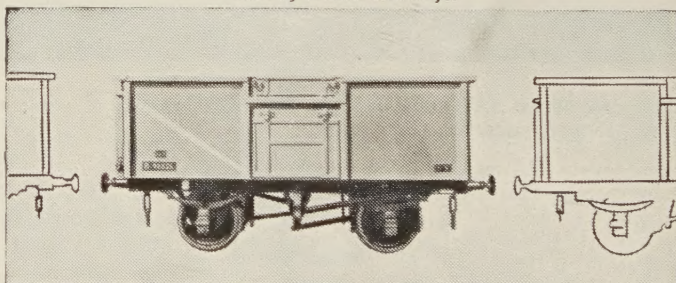
Clearly, Pressed Steel have enormous productivity. Their record shows it. But what the figures do not show is the store of experience built up by our designers and engineers over the last 300 miles of rolling stock. At Pressed Steel we use this experience to make sure that each wagon we produce is a sound engineering job, that it is produced as economically as possible, and in an absolute minimum of time. And we use this experience in intensive research, which will enable us to play our part in developing new and better carriages and wagons in the future.



Broad gauge Covered Wagon type C.R., as used by Indian Railways.



21-ton Hopper-type Wagon with drop bottom door for minerals, as used by British Railways.



16-ton all steel Mineral Wagon. 74,000 of these have already been delivered from our Paisley works.

PRESSED STEEL COMPANY LIMITED



RAILWAY DIVISION, PAISLEY, SCOTLAND.

London Office: RAILWAY DIVISION,
47 VICTORIA STREET, LONDON, S.W.1.

Head Office: COWLEY, OXFORD.

Manufacturers also of motor car bodies.
Prestcold refrigeration equipment and
pressings of all kinds.

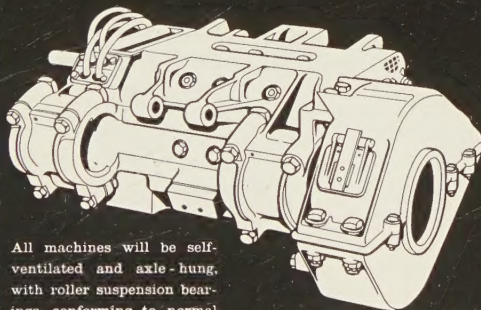
1,200 G.E.C. traction motors ordered by London Transport



The motors are for tube and surface rolling stock to implement London Transport's replacement programme announced last year. All these machines will be built at the new traction motor works of the G.E.C. at Dudley Port, Staffs.

The *Piccadilly Line* will have 760 G.E.C. traction motors with a continuous rating of 80.5 h.p. at 66% field. They will be generally similar to the 32 machines already supplied by G.E.C. for the three prototype tube trains now running on the *Piccadilly Line*.

The *Metropolitan Line* of London Transport will have at least 446 G.E.C. traction motors with a continuous rating of 69.5 h.p. at full field. With the completion of these orders G.E.C. will have supplied over 4,500 railway traction motors to London Transport since 1925.



All machines will be self-ventilated and axle-hung, with roller suspension bearings, conforming to normal London Transport practice.

G.E.C.

traction motors

THE GENERAL ELECTRIC CO. LTD. OF ENGLAND
Magnet House, Kingsway, London, W.C.2.



The diesel electric 'Explorer'—

powered by a **LISTER BLACKSTONE ERS 12 T**

Type tested to B.S. 2953 at traction ratings of 1200 b.h.p. and 1100 b.h.p. It is fitted with BTH electric transmission.

For details of this and other locomotives please write to :

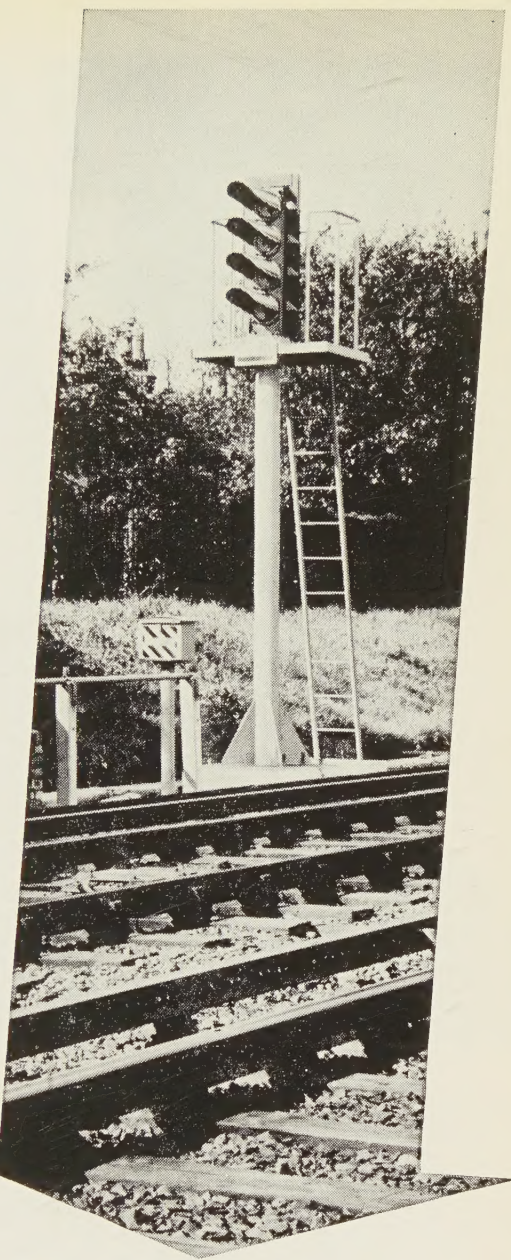
LISTER BLACKSTONE RAIL TRACTION LTD

Imperial House, Kingsway, London W.C. 2.

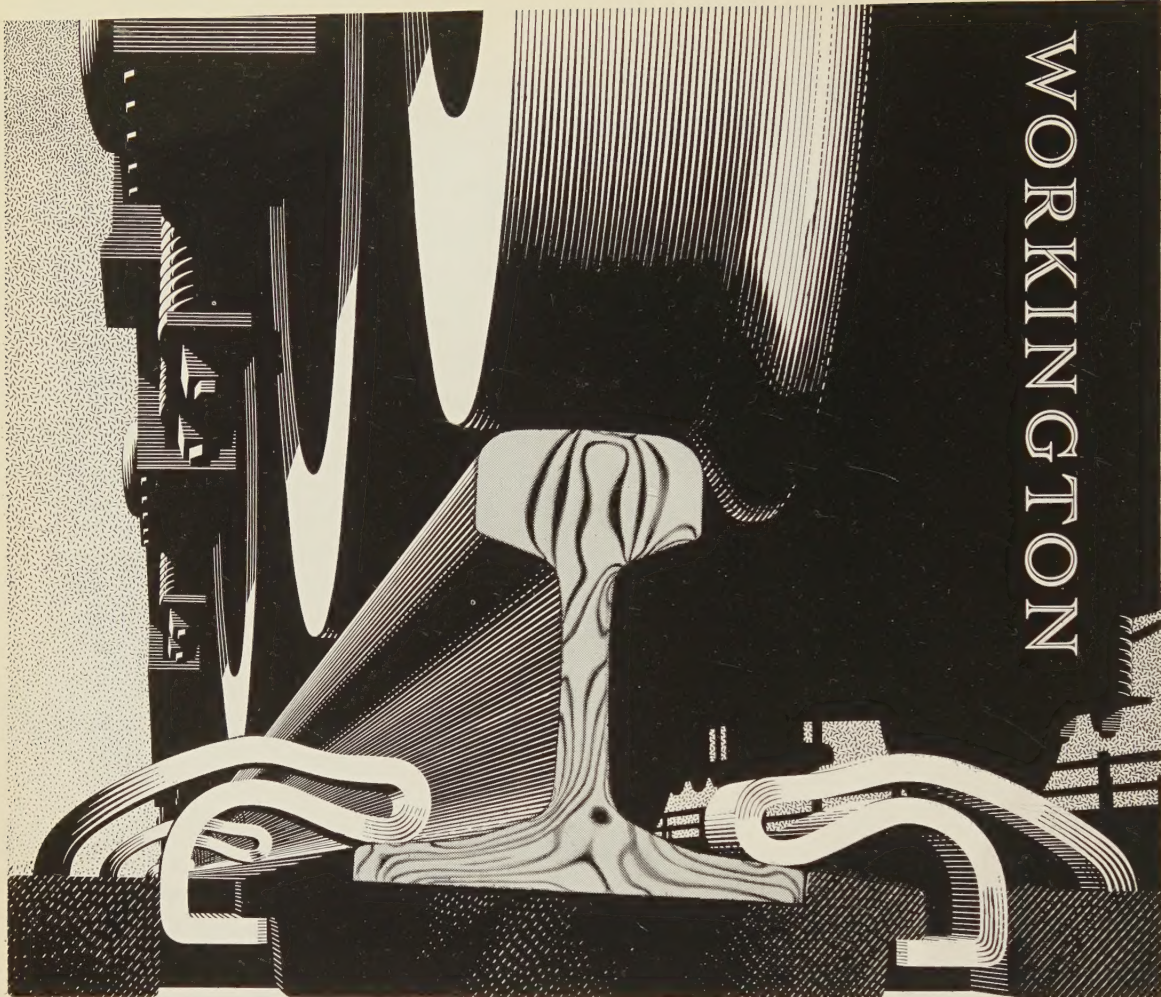
Phone : TEMple Bar 5843. Cables : Tracral London. Telex : 43-230

**pointers
to
efficiency . . .**

*In the modernisation
of the world's
railway systems
efficient signalling
facilities are vital.
Such facilities can be
planned, provided
and installed by*



**THE SIEMENS AND GENERAL ELECTRIC
RAILWAY SIGNAL COMPANY LIMITED
EAST LANE, WEMBLEY, MIDDLESEX**



WORKINGTON

The pattern shown in the rail section above was produced by the photo-elastic method. A model of the section was cut out from a $\frac{1}{4}$ " thick sheet of a transparent material, mounted in a frame at a tilt of 1 in 20 and loaded to represent service conditions. Polarised light projected through the model produces the stress pattern on a screen. The fringes (or bands) on the pattern join up points of equal shear stress. The actual value of the shear stress

along any fringe is proportional to the number of fringes counted from an unstressed area or counted as they spread outwards from the regions of highest stress, as the loading is increased. The method is useful for the comparison of different rail sections and particularly for the examination of proposed new sections. It can be complementary to the measurement of strains in actual rails loaded in a special test frame.

WORKINGTON

IRON AND STEEL COMPANY

RAILS · FISHPLATES · BASEPLATES

STEEL SLEEPERS

'HEY-BACK' and 'WISCLIP' PATENT RAIL FASTENINGS

a branch of THE UNITED

Workington · Cumberland · England

STEEL
COMPANIES LTD

Railway Department: 8/10 Grosvenor Gardens, Victoria, London S.W.1. Phone: Sloane 4533. Grams: Unisteels, Sowest, London

MONTHLY BULLETIN

OF THE

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION

(ENGLISH EDITION)

PUBLISHING and EDITORIAL OFFICES : 19, RUE DU BEAU-SITE, BRUSSELS

Price of this single copy : 80 Belgian Francs (not including postage).

Yearly subscription for 1959	{ Belgium 700 Belgian Francs { Universal Postal Union 800 Belgian Francs	
------------------------------	---	--

Subscriptions and orders for single copies to be addressed to the General Secretary,
International Railway Congress Association, 19, rue du Beau-Site, Brussels (Belgium).

Advertisements : All communications should be addressed to the Association,
19, rue du Beau-Site, Brussels.

CONTENTS OF THE NUMBER FOR AUGUST 1959.

CONTENTS	Page.
I. SEVENTEENTH SESSION. — MADRID : 29th September to 7th October 1958.	
General Proceedings in Sections and in Plenary Meetings.	
SECTION III. — Working.	
Inaugural Meeting of the 3rd Section	751
QUESTION 5. — a) Handling facilities in the goods depots for consignments in less than carloads, containers. General arrangement of the depots. Liaisons between the staff of the depot and the delivery services; b) Railway problems regarding the introduction of general palletization of packages	753
QUESTION 6. — When changing over to electric and Diesel traction for passenger train services, research of the principles which may lead to a rational and efficient organisation of same. For this purpose to : work out the social and economic needs and with this object in view, classify the passenger services according to the needs of the populations served, the distances, the volume of passenger traffic and its variations; fix, for each category, the traffic hours and advisable frequencies as well as the reasonable require- ments of the public for comfort and speed; define the most suitable methods to draw up the timetables (including eventually regular interval train services) : choice of the type of train and rolling stock, fixing the runs	800
II. OBITUARY : G.H. DIJKMANS VAN GUNST	835
III. MONTHLY BIBLIOGRAPHY OF RAILWAYS	57

LIBRARY
OF THE
Permanent Commission of the International Railway Congress Association

READING ROOM : 19, rue du Beau-Site, Brussels.

Works in connection with railway matters, which are presented to the Permanent Commission are mentioned in the « Bulletin ». They are filed and placed in the library. If the Executive Committee deems it advisable they are made the subject of a special notice. Books and publications placed in the reading room may be consulted by any person in possession of an introduction delivered by a member of the Association.

Books, etc., may not be taken away except by special permission of the Executive Committee.

All original articles and papers published in the « Bulletin » are copyright, except with the consent of the Authors and the Committee.

The Permanent Commission of the Association is not responsible for the opinions expressed in the articles published in the « Bulletin ».

An edition in French is also published.

BULLETIN
OF THE
INTERNATIONAL RAILWAY CONGRESS
ASSOCIATION
(ENGLISH EDITION)

[385 (06 .112)

SEVENTEENTH SESSION

Madrid : 29th September to 7th October 1958.

GENERAL PROCEEDINGS

Section III : WORKING.

INAUGURAL MEETING

September 30, 1958, at 9.30 a. m.

PROVISIONAL PRESIDENT : M. CREM.

VICE-PRESIDENT OF THE PERMANENT COMMISSION OF THE ASSOCIATION.

— The meeting began at 9.30 a.m.

The President (in French). — Gentlemen, the Permanent Commission have honoured me by asking me to open the present meeting and to nominate as *President of Section III*, Mr. R. SOULARD, *Directeur du Mouvement de la Société Nationale des Chemins de fer français*.

Mr. SOULARD is too well known to need any introduction to you. He has proved his authority and competence at numerous international meetings. Under his en-

lightened chairmanship, I am sure that our discussions will be perfectly conducted and extremely fruitful. It is with the greatest pleasure, without any further delay, that I ask him to take his seat as President over our debates. (*Applause*).

Mr. Soulard, President (in French). — Gentlemen, as President of the IIIrd Section, I wish to welcome all my colleagues and friends of which this Meeting consists. I wish to express my gratitude to the Permanent Commission of the

Association for the honour paid me in selecting me as President, and I wish to thank in particular the *Vice President* Mr. CREM for his very kind words of welcome.

It is my pleasure to inform you that the Permanent Commission has proposed the following nominations for the Bureau of the Section as *Vice-Presidents* :

Mr. D.J. WANSINK, General Manager of the Netherlands Railways;

Professor W. WYRZYKOWSKI, Vice-President of the Institute of Science and Research of the Polish State Railways, member of the Permanent Commission of the Association;

Mr. J.P. MUSQUAR, Directeur de la Société Nationale des Chemins de fer

luxembourgeois, member of the Permanent Commission of the Association;

Mr. M. DIAS TRIGO, Directeur des Services d'Exploitation et du Matériel de la Direction des Transports terrestres du Ministère des Communications du Portugal, member of the Permanent Commission of the Association,

and as *Principal Secretary* :

Mr. A. MARCHAL, Ingénieur Principal au Service de l'Exploitation de la Société Nationale des Chemins de fer belges.

— *The Section signified its approval.*

— The Section, as suggested by the PRESIDENT, then selected its other officials and drew up its agenda.

QUESTION 5.

- a) Handling facilities in the goods depots for consignments in less than carloads, containers. General arrangement of the depots. Liaisons between the staff of the depot and the delivery services.
 - b) Railway problems regarding the introduction of general palletisation of packages.
-

Preliminary documents.

Report (America [North and South], Australia [Commonwealth of], Burma, Ceylon, Egypt, India, Irak, Iran, Republic of Ireland, Japan, Malaysia, Netherlands, New Zealand, Norway, Pakistan, South Africa, Sudan, Sweden, Union of Soviet Socialist Republics and the United Kingdom of Great Britain and Northern Ireland and dependent overseas territories), by Mr. J. DORJEE. (See *Bulletin* for March 1958, p. 231.)

Bulgaria, Cambodia, Czechoslovakia, Denmark, Ethiopia, Finland, France and French Union, West Germany, Greece, Hungary, Indonesia, Italy, Lebanon, Luxembourg, Poland, Portugal and overseas territories, Rumania, Siam, Spain, Switzerland, Syria, Turkey, Viet-Nam and Yugoslavia), by M. MARCHAND. (See *Bulletin* for April 1958, p. 447).

Report (Austria, Belgium and Colony,

Special Report by M. MARCHAND. (See *Bulletin* for September 1958, p. 1386.)

DISCUSSION BY THE SECTION.

Meeting of the 30th September 1958.

PRESIDENT : R. SOULARD.

— The meeting began at 9.45 a.m.

The President (in French). — Gentlemen, Question 5 was the subject of two very complete and clearly presented reports, for which we must first of all congratulate and thank the Reporters.

The numerous summaries presented are grouped into chapters. We could begin by discussing each chapter and then analyse the suggestions and summaries, and finally agree their definite text.

To facilitate the work of the Secretariat,

will Delegates please give their name and number when they take the floor.

I will now call upon Mr. MARCHAND, the *Special Reporter*.

Mr. Marchand, *Special Reporter* (in French). — In the Special Report, we submitted for your approval the proposed summaries for Question 5. The wording of this question consists of two parts : a) and b). Mr. DORJEE and I considered it necessary to give certain general considerations before point a), which we called : I. — General facts and general organisation.

We considered in fact that considerations relative to the economics of handling could not be dissociated from general conditions of organisation. If it is essential to seek to reduce handling costs, it is equally obvious that first of all the amount of handling required should be reduced by concentrating the traffic and assuring the maximum transport without transhipment.

Therefore, in Chapter I, we have developed the summaries concerned with the organisation of the parcels traffic as a whole.

The President (in French). — Will the Special Reporter please read the Summaries in turn.

Mr. Marchand (in French). — *Summary No. 1* :

1. The relative importance of the parcels traffic differs appreciably from one country to another. It is linked up with the economic and social structure of each country and also, naturally, with the general organisation of its transport.

Each Administration must not overlook

such parallelism, as the evolution of these structures affects the parcels traffic and requires decisions to be reached concerning the organisation and measures of adaptation to be taken.

The President (in French). — Any comments? (*No*). *Summary No. 1 is therefore adopted.*

Mr. Marchand (in French). — *Summary No. 2* :

2. The permanent objective to be aimed at is to improve the parcels traffic both as regards quality (rapidity of transport, no damage, door to door transport, etc.) and costs.

In this connection it is essential :

- to reduce handling operations;
- to mechanise such handling;
- to make good use of the wagons.

Mr. Crem, *Société Nationale des Chemins de fer belges* (in French). — I think that we are all agreed in recognising the importance of regularity in parcels traffic. Therefore, I would like the word « rapidity » to be followed by « and regularity » of transport, etc.

The President (in French). — I am sure no one will object. We will therefore add the word « regularity ».

Consequently, *Summary No. 2 is adopted with the following text* :

« 2. The permanent objective to be aimed at is to improve the parcels traffic both as regards quality (rapidity and regularity of transport, no damage, door-to-door transport) and costs.

« In this connection it is essential :

- « to reduce handling operations;
- « to mechanise such handling;
- « to make good use of the wagons. »

Mr. Marchand (in French). — *Summary No. 3* :

3. The « classic » type of organisation into regions and regional centres, based on the advantages gained by the concentration of the parcels at a reduced number of transit points and the making up of long distance through-wagons is adopted by all the Administrations of some importance.

It limits the number of stages and makes it possible, if the regional centres coincide with localities having an important traffic of their own, to transport a large number of parcels directly from the consigning station to the destination station.

Mr. Crem (in French). — I would like to suggest adding at the end : « from the centre of the concentration point to the distribution area ». I think the Summary should make it clear that it is a question of the rail transport and not of combined rail and road transport. In certain cases, the concentration may be achieved by means of lorries, which does away with pick up wagons.

Mr. Marchand (in French). — Mr. CREM's remark concerns the distinction between through wagons which are exchanged between regional centres and those which are not. In the first paragraph of Summary No. 3 we have avoided making such a distinction and spoken of long distance through wagons without specifying the purpose for which these are used.

The second paragraph adds precision to the idea since it mentions the traffic between the consigning station and the destination station. We are concerned with the fact that in any organisation of parcels traffic, there are always some routes over which the traffic justifies direct transport without transhipment;

the organisation must normally allow for these through runs; this is the idea behind the sentence : « It limits the number of stages and makes it possible to transport a large number of parcels directly from the consigning station to the destination station. »

Mr. Crem (in French). — I would willingly add : « or at least from the centres in the concentration areas to the centres in the distribution areas. »

The President (in French). — It seems to me that that is another idea.

Mr. Crem (in French). — But there may be through runs other than between two centre stations.

The President (in French). — Such a case comes into the first paragraph.

Mr. Discry, *Société Nationale des Chemins de fer belges* (in French). — It is between the consigning station and the centre station and between the centre station and the destination station that it is of value to avoid transhipments.

The President (in French). — The essential idea to be brought out is the possibility of transporting a large number of parcels without transhipment.

Mr. Crem (in French). — Such a formula would satisfy me completely.

The President (in French). — The second paragraph will therefore end as follows : « ... to transport a large number of parcels without transhipment. » deleting the words : « directly from the

consigning station to the destination station. »

Mr. Marchand (in French). — I see no objection to such a modification.

The President (in French). — *Summary No. 3 is therefore adopted as follows.*

« 3. The « classic » type of organisation into regions and regional centres, based on the advantages gained by the concentration of the parcels at a reduced number of transit points and the making up of long distance through-wagons is adopted by all the Administrations of some importance.

« It limits the number of stages and makes it possible, if the regional centres coincide with localities having an important traffic of their own, to transport a large number of parcels directly without transhipment. »

Mr. Marchand (in French). — *Summary No. 4 :*

4. However, in spite of the adoption of the « classic » organisation, it is impossible for very extensive railway systems — unless they consent to an inexcusable waste of rolling stock — to run through-wagons between all their regional centres. Intermediate transhipments are unavoidable for a certain number of long-distance consignments. It is advantageous to concentrate them into a small number of selected and suitably equipped points.

It is of advantage if such points coincide with the regional centres.

Mr. Discry (in French). — In the chapter dealing with palletization, mention is made of running through wagons three times a week. At the end of Summary No. 4 would it not be advisable to mention

this point? We suggest the following text : « It may however be advantageous in order to reduce handling, when storage space is available, to link certain centres by wagons running every other day. »

Mr. Marchand (in French). — I agree with Mr. DISCRY. However, I think the text he suggests should come at the end of Summary No. 3 which deals with running through wagons.

Mr. Discry (in French). — I agree to its being added to Summary No. 3.

The President (in French). — Any comments?

Mr. De Bruin, *Netherlands Railways* (in French). — Mr. DISCRY's remark calls attention to the fact that the big railways are not the only ones who are not able to run through wagons every day between the regional centres. But in certain cases, wagons which could only be run every other day and so gave rise to delays have been replaced by lorry services. It might be a good thing to mention this solution in the Summaries.

The President (in French). — This point belongs to the chapter dealing with combined rail and road services.

Mr. De Bruin (in French). — It is mainly concerned with wagons running in the different areas, but it may also be advantageous to link up certain regional centres by lorry services.

The President (in French). — Mr. DE BRUIN might prefer the words « very

extensive railway systems » to be deleted from the text of the Summary.

Mr. De Bruin (in French). — In the case of long distances, there is one way of avoiding waste, and that is to make use of lorries instead of through wagons. The possibility of using lorries might be mentioned at the end of Summary No. 2.

Mr. Marchand (in French). — I think such an addition might lead to a certain confusion.

The President (in French). — May I ask you to entrust the Office with finding a text for the third paragraph of Summary No. 3, which will include both the ideas expressed?

Mr. Marchand (in French). — In Summary No. 4, I should prefer to retain the expression « very extensive railway systems », as the question of ton utilisation of the railway stock is in relation with the distances to be gone over.

The President (in French). — What about saying : « in particular very extensive railway systems »? The Meeting might agree to this.

Mr. De Bruin (in French). — The addition of the words « in particular » would meet me all right, as they make it clear that the text does not apply solely to very extensive railway systems.

The President (in French). — In this case, the text of Summary No. 4 will be worded as follows :

« 4. However, in spite of the adoption of the « classic » organisation, very extensive railway systems, *in particular*, cannot — unless they consent to an inexcusable waste of rolling stock — run through-wagons between all their regional centres. Intermediate transhipments are unavoidable for a certain number of long-distance consignments. It is advantageous to concentrate them into a small number of selected and suitably equipped points.

« It is of advantage if such points coincide with the regional centres. »

Mr. Marchand (in French). — *Summary No. 5 :*

5. Within the framework of the classic organisation, a free hand can to some extent be given to the stations to run other wagons than regular ones. The conditions under which such wagons are put in operation must be linked up with the length of the runs they have to make; the longer the run the more necessary it is to get sufficient use of such wagons.

This method, which can be used by all the consigning stations, makes it possible to avoid transhipments (transhipment at the centre station of the departure region or even at the centre station of the arrival region).

Certain Administrations use this method in the transhipment stations as well, but the rational use of such wagons then presupposes a preliminary knowledge of the actual traffic :

- either by a preliminary storing of the parcels on the platforms, which involves additional handling;
- or by preparing the work of the depots concerned from the waybills when these are sent with the wagons or by a parcels traffic planning.

The President (in French). — Any comments? (No).

— *Adopted without modification.*

Mr. Marchand (in French). — *Summary No. 6 :*

6. Certain Administrations use the transport documents to regulate the forwarding of the parcels. Carried out in somewhat various ways, such an organisation makes it easier to :

- determine the cause and responsibility in case of delay, loss or damage;
- organise and control the handling operations.

In other countries, the transport documents are forwarded separately and are only checked against the parcels on arrival. Such an arrangement simplifies and appreciably speeds up the loading and unloading of the wagons at departure or en route.

The President (in French). — No comments?

— *Adopted without modification.*

Mr. Marchand (in French). — *Summary No. 7 :*

7. In many countries, the checking at departure and arrival have been considerably simplified in order to reduce costs.

Mr. Crem (in French). — I think that the suppression of checking at departure first of all makes it possible to speed up the work, and as a consequence to reduce the cost. Could we not say : « ... has been considerably simplified in order to speed up the work and reduce costs. »

The President (in French). — That is a fact, no one will deny it. I agree. *Summary No. 7 will therefore read as follows :*

« 7. In many countries, the checking at departure and arrival has been considerably simplified in order to speed up the work and reduce costs. »

Mr. Marchand (in French). — This brings us to Chapter II : *Goods depots. Summary No. 8 :*

8. In depots where no transshipments take place, it is advisable to have the areas for the handling of incoming and outgoing goods under one roof.

This arrangement makes it possible to reduce the staff required for handling, and facilitates the supply of empty stock (wagons and pallets) to the « outgoing » area.

It may make it possible to deal with seasonal variations in the traffic by extending one area at the expense of the other, or even, exceptionally, provided door to door deliveries are carried out immediately by the delivery service, to use the same area for both purposes : handling at arrival in the morning and forwarding in the evening.

In the interest of the customers, it is desirable to avoid forwarding in separate buildings allocated to different destinations.

Mr. Tribelhorn, Swiss Federal Railways (in French). — I suggest we mention the case of large stations with so much traffic that arrivals and departures cannot be dealt with in the same building.

The President (in French). — The proposed Summary introduced by the words : « it is advisable... » means there is no obligation.

Mr. Marchand (in French). — Many existing installations cannot be modified at the present time. But in the case of new constructions, arrangements should be made to group the incoming and outgoing traffic under one roof.

Mr. Tribelhorn (in French). — I agree with the suggested text.

Mr. Dorjee, Reporter. — I would suggest that where a very large amount

of traffic is dealt with at stations there should be separate areas for outgoing and incoming traffic, but our Chairman has pointed out that in paragraph 1, it is stated that : « it is *advisable* to have... » I think this covers the point.

Mr. Fiennes, British Railways. The different points of view expressed during the discussions might be reconciled by saying : « In depots where no transshipment takes place, the areas for the handling of incoming and outgoing goods may be under one roof. »

Mr. Dorjee. — This is the first time the Reporters have made a definite recommendation. The modification as proposed by Mr. FIENNES deprives the text of its character of recommendation. The Reporters have considered it necessary to give a definite recommendation here.

Mr. Cirillo, Italian State Railways (in French). — In my opinion, the wording of Summary No. 8 is clear and to the point. The idea expressed, is that in new installations, the two areas should be together as far as possible; this is merely a recommendation, and I think it is sufficient. If we say on the contrary that the two areas *might* be together, it becomes a mere statement. That is why I suggest we retain the text proposed by the Reporter.

Mr. Blee, British Railways. — I would like to support Mr FIENNES. I think the point he raises is a fundamental one. Modern techniques for handling *outwards traffic* are clearly most economical. Handling is effected by using the road transport vehicle as the mechanical equipment

for bringing goods in and unloading into the truck, whereas different techniques are necessary for the economical handling of *inwards traffic*. Therefore, in planning a freight terminal, I support the recommendation that it should be planned as a whole.

The President (in French). — I think we are all agreed in stating that it is advantageous to group the « incoming » and « outgoing » areas together. The discussion is about the words to be used. « It is advisable » means it is recommended and not a mere statement of fact. The idea is of value, especially when projecting new depots.

Mr. Discry (in French). — Instead of « it is indicated » could we not say : « It is indicated whenever possible... » each time new installations are projected?

The President (in French). — Do you agree to Mr. DISCRY's suggestion?

Mr. Fiennes. — I do not agree.

Mr. Dorjee. — Are we to give recommendations or statements of facts. Here is *a recommendation* and I feel sometimes Reporters will be accused of having given no recommendations, just statements of facts. Mr. FIENNES has made *a statement of facts*. We must decide whether we are going to make recommendations or statements of fact.

The President (in French). — The report must open up future perspectives. It must therefore not merely be a simple photograph of existing situations. It

should express ideas which will be an inspiration when installations are being modified in the future. We are all agreed about this. In this connection, Mr. DISCRY's suggestion should satisfy the Meeting; we will therefore say : «... it is indicated, *whenever this is possible...* »

Mr. Crem (in French). — I suggest we complete it by saying : «... it is recommended to group... »

The President (in French). — The text will therefore read : « In depots where no transshipment takes place, it is recommended to group, whenever this is possible, ... » I think this suggestion should reconcile the points of view mentioned.

Mr. Blee. — May I say at once how warmly I welcome the approach by the Reporter in coming forward with a recommendation, but, having said that, it does seem to me that it is more necessary for us to use this opportunity to consider whether those recommendations might be modified in the best interests. It is only from that point of view that I support Mr. FIENNES. Over the past ten years or so, the general experience seems to lie rather against, than for, the nature of the recommendations immediately before us. If that is the impression of only one Delegate from Great Britain, I am prepared to stand down. »

The President (in French). — Are there any other comments about Summary No. 8? (No). In this case, Summary No. 8 will read as follows :

« 8. In depots where no transshipments take place, it is recommended that there

should be areas for the handling of incoming and outgoing goods under one roof.

« This arrangement makes it possible to reduce the staff required for handling, and facilitates the supply of empty stock (wagons and pallets) to the « outgoing » area.

« It may make it possible to deal with seasonal variations in the traffic by extending one area at the expense of the other, or even exceptionally, provided door to door deliveries are carried out immediately by the delivery service, to use the same area for both purposes : handling at arrival in the morning and forwarding in the evening.

« In the interest of the customers, it is desirable to avoid forwarding in separate buildings allocated to different destinations. »

Mr. Marchand (in French). — *Summary No. 9 :*

9. In stations with a transshipment area, especially in the regional centres, it is advantageous, in order to obtain a greater concentration of parcels, to juxtapose :

— the « transshipment » and « arrival » or « transshipment » and « departure » areas, according to the amount of traffic that can be combined in this way;
— or even, better still, to combine all the areas into a « single depot ».

The President (in French). — Are there any comments? (No). This point is particularly essential.

— *Summary No. 9 is therefore adopted without modification.*

Mr. Marchand (in French). — *Summary No. 10 :*

10. Railway depots must be as far as possible :

- close to the industrial and commercial areas of the towns they serve;
- have convenient road access and a long road frontage which can be extended should the road services eventually be further developed;
- and have suitable connection by rail with the reception and formation sidings for the parcels trains; for this purpose the marshalling yard should be as close as possible to the depots.

The President (in French). — This is a recommendation for the future.

Mr. Blee. — May I suggest a slight change in the order of the words. I would suggest the end of the phrase should read : « the depots should be as close as possible to the marshalling yard ».

Mr. Dorjee. — I have no objection to this proposal if the marshalling yards lie inside the town, otherwise the last paragraph of Summary 10 conflicts with the the first and second. »

The President (in French). — The Reporters have therefore given priority to the installations of depots close to industrial and business centres. If it is also possible to install them near the shunting sidings, so much the better, but if this is not possible we must accept the drawback of being a way from the platforms and sidings.

Mr. Blee. — The reason for my interpolation is that our costings examinations show clearly how high a proportion of overall cost of railway movement stems from collection and delivery work to and from depots and yards but I recognise one must not lose sight of the cost involved in « tripping » from the depot to the yard. However, if the Assembly do not agree, I do not insist.

Mr. Cirillo (in French). — In the last paragraph, could we not replace the word « practical » by « rational ».

The President (in French). — Practical means convenient, easy. We might use the word « easy ». Do you agree? (*Agreed*). In this case, *the text of Summary No. 10 is adopted in the following form :*

« 10. Railway depots must be, as far as possible :

« — close to the industrial and commercial areas of the towns they serve;

« — have convenient road access and a long road frontage which can be extended should the road services eventually be further developed;

« — and have easy connection by rail with the reception and formation sidings for the parcels trains; for this purpose the marshalling yard should be as close as possible to the depots. »

Mr. Marchand (in French). — *Summary No. 11 :*

11. Most of the depots with small of average traffic are so designed that they have an extensive length and can be served by a single siding, or two at the most.

Large depots, especially those which include a transshipment area must, on the other hand, be planned on compact lines so as to reduce the distance goods have to be conveyed over; they are therefore always served by several sidings.

Arrangements which include dead-end sidings and a platform at right angles to them avoid the operations of conveying the goods and bringing in or taking away wagons interfering with each other.

The President (in French). — Are we agreed about this text?

— *Adopted without comment.*

Mr. Marchand (in French). — *Summary No. 12 :*

12. When it is necessary to cross over the sidings to get from one platform to another (as in the case of very long platforms or depots served from both ends), the goods can be handled by going through the wagons, or else, use can be made of flat wagons arranged for this purpose, or finally in the case of large installations, fixed bridges with a movable deck can be used; but with all these methods the handling of the goods is interrupted whilst the wagons are being put into position or taken away.

Mr. Discry (in French). — Do you not think this Summary might be suppressed? Everything in it is so obvious.

Mr. Dorjee. — Do we give statements of fact or do we make recommendations? I confess that when writing my report, I was in difficulty. When you make recommendations, you very often find yourself in conflict with your colleagues from other countries. If you only state facts, then you are reproached for not making recommendations. What are we to do? If we continue on these lines, I can predict that we are going to cut out many summaries, because many of our summaries are mere statements of fact, if not statements of the obvious.

Mr. Crem (in French). — Could we not suppress the end of the Summary at least? In effect, when the wagons are put in position, it is necessary to interrupt the movement of the goods. This is so obvious, it is unnecessary to mention it.

Mr. Dorjee. — We put in these three lines because we wanted to give the facts. It is intended as a warning that there are drawbacks to the recommendation. We can easily leave out these three lines.

The President (in French). — What is left of Summary No. 12 is sufficient to attract the attention of those studying the question.

— *Summary No. 12 is approved with the following text :*

« 12. When it is necessary to cross over the sidings to get from one platform to another (as in the case of very long platforms or depots served from both ends), the goods can be handled by going through the wagons or else, use can be made of flat wagons arranged for this purpose, or finally in the case of large installations, fixed bridges with a moveable deck can be used. »

Mr. Marchand (in French). — *Summary No. 13 :*

13. The design, space required and division of the handling areas depend mainly upon the following factors :

- the amount of goods to be handled and the relative volume of the peak traffic;
- the ratio in amounts of incoming, outgoing and transhipment goods;
- the number of destinations over which the traffic is spread and the number of delivery zones;
- the existence of collection and delivery services belonging to or attached to the railway;
- the system of dispatch;
- the method of working adopted with or without mechanisation of handling operations.

The President (in French). — No comments?

— *Adopted without comment.*

Mr. Marchand (in French). — *Summary No. 14 :*

14. The most generally prevailing ten-

dency as regards the layout of the different areas in the large depots can be summed up as follows:

- small « consigning » areas limited to the space necessary for accepting, and if necessary, sorting parcels before conveying them to the wagons;
- extensive « arrival » areas because of the space needed for the storage of the parcels pending delivery.

It should be noted that:

- when goods are collected at the station much more room is needed than when they are home-delivered;
- the space required for the storage of parcels at the end of the week which parcels cannot be delivered because the shops are closed is generally becoming greater and greater owing to the social evolution taking place.

As regards the platforms serving the sidings, their width varies dependent on the mechanisation of the handling and the amount of goods to be put onto the platforms before being loaded into the wagons.

Mr. Discry (in French). — This is a difficult chapter for which to find a suitable text. We tried to amend the wording, but without success.

In the second and third paragraphs, mention is made of « outwards » yards of small size, then extensive « inwards » yards. At the end of the afternoon, there is a very large concentration of parcels. The area required in the « outwards » yards is at least as large as that of the « inwards yards ». The evolution that is taking place means that the great bulk of parcels are concentrated in an interval of two hours. The words « extensive » and « small size » should be eliminated. We might say: « outwards yards based on the space needed... » and later on, « inwards yards based on the large area... »

Mr. Marchand (in French). — Collections have been considerably develop-

ed in Belgium and the « outwards » services must be based as a function of relatively compact peak periods. I had the impression that this was a special case, and that in the great majority of cases the « outwards » areas were small because collection services have not been greatly developed. In France, in any case, where however there are important peaks in the parcels traffic, the « outwards » yards are much smaller than the « inwards » ones.

The President (in French). — The text beginning by « The most generally prevailing tendency... » covers such exceptional cases as that of Belgium.

Mr. Blee. — May I suggest that the word « extensive » in the second paragraph, as related to accommodation, should read « adequate ». The reason for this suggestion is that much depends on the relative costs of handling and of delivery of the consignment. The wider the area for stacking goods, the more often are they handled, human nature being what it is, but that an « adequate » area should be available is fair and I think the recommendation should be improved by the use of the word « adequate » instead of « extensive ».

Mr. Dorjee. — I do not think « adequate » is the right word. Extensive arrivals areas are required. Some Administrations do not own delivery vehicles. Some have not many such vehicles. They have to put parcels in bays awaiting vehicles. The vehicles are loaded by the drivers. But in Great Britain, it is the depot staff who load the vehicles. You

put the vehicles in front of the depot and on arrival the parcels are loaded straight on to them, but so far as I know that is only done in Great Britain. In other countries, the goods are stored to await consignees taking delivery, or they are stored in bays waiting for the drivers to load their vehicles. So Great Britain is a minority in this respect.

Mr. Marchand (in French). — **Mr. DORJEE** explains the comments made by the British Delegates by stating that the English method of working differs from that of other countries. Parcels consigned home are delivered by the staff handling them. « The inwards yards » are restricted as regards buildings because the parcels are loaded onto the vehicles. The replies received show that this method is not used in other countries, where the « incoming » parcels are piled up in the bays. We wish to give the results of our enquiry and the expression « extensive » corresponds to the information obtained from the replies.

The President (in French). — The expression : « The tendency... » with which point 14 begins makes it sufficiently clear that the situation described is not the only one.

Mr. Blee. — May I add one further word. I think, here, we are back again on the horns of his dilemma. As to fact, I agree with **Mr. DORJEE**, but in his wisdom he might advocate a recommendation on which all might work.

The President (in French). — Perhaps **Mr. BLEE** could suggest a text which would

reconcile opinions unanimously. I suggest that **MESSRS. BLEE, DORJEE and MARCHAND** meet after the meeting and tell us tomorrow the results of their exchange of opinions.

Mr. Thorhag, Swedish State Railways. — I think the word « extensive » should be there. In our country, only a small percentage of the goods are put on vehicles. All other goods must be stored in the arrival depots. »

The President (in French). — We could adopt the text provisionally, deleting the words « not very extensive », and tomorrow morning, we return to this text if a new wording meeting everyone has been found (*Agreed*).

Mr. Marchand (in French). — *Summary No. 15 :*

15. The development of mechanised handling makes it necessary to see that there are no obstacles on the platforms and that these have good running surfaces.

In nearly every country the height of the platforms corresponds with that of the floors of railway vehicles (1.15 m to 1.2 m = 3' 9 3/8" to 3' 11 1/4"), so that goods are handled on the same level.

There are difficulties on the road side in every case, since the floors of private lorries and delivery vehicles are at very varying levels.

In order to handle heavy parcels, pallets and small containers, in spite of such differences in level, certain Administrations use fixed bridges or movable ones operated by jacks.

In this connection, some standardisation of the different categories of road vehicles would be advisable.

The President (in French). — No comments?

— *Adopted without modification.*

Mr. Marchand (in French). — This brings us to *Chapter III : Traditional handling*.

Summary No. 16 :

16. The wheelbarrows, stillages and hand trucks commonly used in the small stations are also adequate equipment in the large depots for all handling of goods of low weight or small size within a limited radius of action.

The President (in French). — Is everyone agreed about this text?

— *Adopted without comment.*

Mr. Marchand (in French). — *Summary No. 17 :*

17. In the large depots, when the goods have to be conveyed over longer distances, it is essential in order to reduce costs, to group the parcels into larger units for internal transport and to mechanise their conveyance.

This is effected by loading them onto power trucks, or on trailers or semi-trailers which are then coupled to tractors. Some countries also make use of overhead or underground traction-chains to which trucks are coupled. Belt conveyors are no longer used to move the parcels in this way.

Mr. Blee. — May I suggest that the last sentence should read : « Belt conveyors are no longer generally used », because in some countries, of which one has knowledge, they are used.

Mr. Marchand (in French). — Mr. BLEE is referring to Great Britain. I do not know if conveyor belts are used to move the parcels in the United States.

I would like to ask something to the representative of the Deutsche Bundesbahn. In Germany, before the war, conveyor belts were used to transport parcels in Hamburg. What is being done now?

Dr Wendler, Deutsche Bundesbahn (in German). — Confirmed that a conveyor belt was used up to 1943 in the goods central station at Hanover. This conveyor belt was partially destroyed during the war. Its reconstruction was not decided after the war owing to the inconvenients presented by this system (rigidity of the belt, too much room taken, slow speed, damages to parcels, etc).

Mr. Thorhag. — In Sweden, we have a station where a conveyor belt is in use and we intend to install in another station a conveyor for the transport of pallets loaded on trucks. This installation will be ready next year.

Mr. Marchand (in French). — Are the installations used for sorting or merely to move the parcels?

Mr. Thorhag. — The conveyor belt is used to move parcels, but the conveyor is mostly used for sorting.

The President (in French). — To go back to the proposed modification : « In general conveyor belts seem to be used no longer for moving the parcels. »

Mr. Thorhag. — In the second paragraph, mention is made of « tractors » In Sweden and other countries, fork lift trucks are used sometimes for this purpose.

Mr. Dorjee. — Fork lift trucks are not used in most of the countries consulted.

The President (in French). — The word « tractor » is sufficiently general to cover all the different machines used.

Mr. Dorjee. — We are speaking now of traditional handling. In traditional handling, there are no fork lift trucks.

Mr. Marchand (in French). — I would like to draw your attention to the fact that at the end of Summary No. 22, we made it clear that fork lift trucks can be used as tractors.

The President (in French). — I think we can retain the term « tractors ».

Mr. Marchand (in French). — The last paragraph will therefore read : In general, conveyor belts are rarely used to move parcels in this way ».

Mr. Discry (in French). — The Swedish Railways tell us they have one conveyor belt in use. We might then say : « Conveyor belts appear to be rarely used for moving parcels in this way. »

The President (in French). — Agreed. Has anyone else any objections to raise?

— *Summary No. 17 is therefore adopted as follows :*

« 17. In the large depots, when the goods have to be conveyed over longer distances, it is essential, in order to reduce costs, to group the parcels into larger units for internal transport and to mechanise their conveyance.

« This is effected by loading them onto power trucks, or on trailers or semi-trailers which are then coupled to tractors. Some countries also make use of overhead or underground traction-chains to which trucks are coupled.

« Belt conveyors are rarely used to move the parcels in this way. »

Mr. Marchand (in French). — *Summary No. 18 :*

18. Assembling quantities of parcels for grouped handling generally implies their preliminary sorting per destination.

In the large depots, where the parcels are grouped for many different directions, it is generally necessary to set up several special sorting areas, which involves additional handling.

These operations can also be carried out by making a preliminary simplified sorting of the parcels and by using « distributing trucks », which are in fact mobile platforms running alongside the wagons to be loaded in the yards (depots without platforms).

— *Adopted without discussion.*

Mr. Marchand (in French). — *Summary No. 19 :*

19. The sorting of parcels can be facilitated :

- in the area in which the wagons are unloaded, by using slat-conveyors or unloading machines;
- in the area where small parcels are sorted, by using conveyor belts.

— *Adopted without comment.*

Mr. Marchand (in French). — *Summary No. 20 :*

20. With a few rare exceptions, the special handling equipment is used in particular where heavy parcels are concerned.

In the large depots the movable hoists formerly used for this purpose are being replaced to an increasing extent either by fork lift trucks, or, in the case of very heavy parcels which are not loaded outside the shed by 1 t to 3 t mobile cranes working inside the shed, or large-capacity fork lift trucks.

— *Adopted without comment.*

Mr. Marchand (in French). — This brings us to *Chapter IV : Handling by means of pallets.*

I would like to draw your attention to the fact that it is not a question of palletization but of handling goods by means of pallets.

Summary No. 21 :

21. When used for moving parcels in the depots the pallet has the following advantages :

- the handling of heavy parcels which is difficult with trucks on account of their inevitable loading height is facilitated;
- the four-entry pallet can be tackled from whatever side;
- the pallet provides a means of storage for the parcels, either by stacking the pallets or by placing them on racks;
- the space taken up by empty pallets is very small.

The use of pallets is therefore extremely advantageous in depots where space is scarce.

Mr. Crem (in French). — Do you think that the paragraph : « pallets open on all four sides can be moved... etc. » is necessary? Everyone knows that this is precisely the great advantage of pallets over trucks which can only be dealt with from one side.

Mr. Marchand (in French). — I agree with Mr. CREM. Suppressing this paragraph would not damage the Summary in any way.

The President (in French). — We are therefore agreed; it appears that the paragraph stating that : « pallets open on all four sides can be moved from no matter what side... » should be deleted.

Mr. Johannesson, *Swedish State Railways*. — I would like to call attention to the fact that palletization reduces the

number of damages, and I would like this advantage to be included in the Summary.

The President (in French). — That is an idea that will be dealt with later on.

Mr. Johannesson. — It is stated in the Summary that « the space taken up by empty pallets is very small. » The reduction of the number of damages is also an advantage of similar interest.

The President (in French). — When mentioning the saving in space, we are thinking of the area to be allowed on the station platforms, the space which can be reduced when pallets are used.

Mr. Marchand (in French). — We did not get the impression that the use of pallets in handling reduced damage. Whether trucks or pallets are used, there is the same risk.

Mr. Johannesson. — I will not insist. We can return to this point later on.

Mr. Discry (in French). — I suggest deleting not only the third paragraph but also the fifth : « the space occupied by empty pallets is small. » and joining up the remaining paragraphs.

The President (in French). — I will certainly support Mr. DISCRY's suggestion. Summary No. 21 might be worded as follows :

« 21. When used for moving parcels in the depots the pallet has the following advantages :

« — the handling of heavy parcels which is difficult with truck on account

of their inevitable loading height is facilitated;

« — the pallet provides a means of storage for the parcels either by stacking the pallets or by placing them on racks; the use of pallets is therefore extremely advantageous in depots where space is scarce. »

Are we all agreed about this text? (*Agreed*).

Mr. Marchand (in French). — *Summary No. 22* :

22. To be economic, handling and conveyance should be carried out :

- over short distances, by hand pallet trucks on simple rollers or, better still, of the bogie type or by pedestrian-controlled power fork lift trucks;
- in the case of moderate distances (50 to 150 m = 55 to 165 yards) by rider-controlled fork lift trucks;
- for longer distances, by trains consisting of lift trucks and trolleys. The fork lift trucks can then be used as tractors if they are powerful and fast enough.

Mr. Johannesson. — May I ask Mr. DORJEE to add « traction-chains for pallet carriers. »

Mr. Dorjee. — The text of the Summaries applies to all countries. There was only one country which had traction-chains.

Mr. Scherman, Swedish State Railways. — We think it is good for us to make such carriers. Although we are alone now, perhaps in a few years there will be many countries who will have them. I think new methods ought to be mentioned, even though they are exceptions.

Mr. Marchand (in French). — I have no objection. We might say : Traction-chains might also be used for this purpose, hauling either trucks loaded with pallets or loaded hand operated fork lift trucks. »

The President (in French). — Summary No. 22 will therefore read as follows :

« 22. To be economic, handling and conveyance should be carried out :

« — over short distances, by hand pallet trucks on simple rollers or, better still, of the bogie type, or by pedestrian-controlled power fork lift trucks;

« — in the case of moderate distances (50 to 150 m = 55 to 165 yds.) by rider-controlled fork-lift trucks;

« — for longer distances, by trains consisting of lift trucks and trolleys. The fork lift trucks can then be used as tractors if they are powerful and fast enough. Traction chains can also be used for this, hauling either trolleys loaded with pallets or hand operated fork lift trucks which are loaded. »

Does the Meeting agree? (*Agreed*).

Mr. Marchand (in French). — *Summary No. 23* :

23. The fork lift trucks have internal combustion engines or electric motors.

The purchase price of the former is lower, but the operational costs are higher. In general, they are faster so that they are likely to be preferred in depots of extensive length; the Administrations using them do not report any serious trouble arising from exhaust gases.

The characteristics of the fork lift trucks depend on the dimensions of the pallets used and those of the vehicles to be served (width of the wagons, width and height of the doorways, etc.).

The load which they can handle is

limited by the strength of the wagon floors; it seems to be correct that a load of 1 t is sufficient for most Railway Administrations.

Mention should be made of the use of devices with mobile forks or mobile lift-frames (adjustable or retractable) intended to facilitate the manœuvres of the empty or loaded equipment.

Mr. President (in French). — Does anyone wish to say anything about this Summary? (*No comments*). Under these conditions, I declare it *adopted*.

Mr. Marchand (in French). — *Summary No. 24* :

24. Many Administrations would like to be able to buy for their small depots simple low priced hand pallet trucks and stackers, in principle purely mechanically operated. Improvements to fork lift trucks from the point of view of their dead weight and manœuvrability (radius of gyration, size) are also desired.

Mr. Crem (in French). — Worded in this way, the Summary seems to imply that neither fork-lift trucks nor stackers are on the market. Is it really necessary to retain Summary No. 24? I think the first paragraph at least should be modified, as it seems to imply that there are no such machines, which is inaccurate.

Mr. Marchand (in French). — It is a wish expressed by many Administrations. We consider that as far as the makers of handling equipment are concerned, it is desirable that the Congress should draw attention to the need to have simpler and cheaper equipment available. There are many mechanical machines but they are too dear. In our opinion, the makers must devote their attention to designing simpler and cheaper equipment.

Mr. Blee. — May I first qualify what I wish to say, because I am not advertising ! But there is a Mechanical Handling Institute, where examples of this type of equipment can be seen by those who will use our railway service and ships to look at them. »

Mr. Dorjee. — The machines we use are in our opinion not yet low priced and not of sufficient quality. We are looking for reliability and low price.

Mr. Blee. — I could give the names of firms who produce good articles for a low price.

The President (in French). — The wording suggests that such equipment does not exist as yet. Perhaps we could say : « Many Administrations would like to see simpler and cheaper stackers on the market. »

Mr. Thorhag. — In Sweden, we are using pallet-carriers of a price of 600 crowns, which could not be simpler nor cheaper.

The President (in French). — What do the Reporters think ?

Mr. Marchand (in French). — The English Reporter was thinking of mechanical lifts making it possible to stack the pallets. The French Reporter was thinking of hand operated lifts working by hydraulic pump and thought simpler equipment, of the type used in agriculture, was needed, which would be cheaper. In both cases, small simple machines without expensive devices are what is needed.

The President (in French). — Apart from Sweden which appears to have equipment which suits it, there are many Administrations which would like to pay less for more satisfactory machines. The expression « Many Administrations » will no doubt satisfy the Swedish Delegates?

Mr. Thorhag. — It was the words : « small depots » to which I object. It is not necessary to have stackers at small depots.

Mr. Marchand (in French). — In the case of hand operated elevators, we need purely mechanical equipment, without hydraulic pumps which are expensive. Purely mechanical machines, at a lower price, would make it possible to equip the small depots which now have no hand operated elevators.

The President (in French). — By inserting the proposed words in the text, i.e. « simpler and less costly », Summary No. 24 will read :

« 24. Many Administrations would like to be able to buy for their small depots simpler and cheaper hand pallet trucks and stackers, in principle, purely mechanically operated.

« Improvements to fork lift trucks from the point of view of their dead weight and manoeuvrability (radius of gyration, size) are also desired. »

Are we all agreed about this text? (*Agreed*). I therefore declare it *approved*.

Mr. Marchand (in French). — *Summary No. 25 :*

25. If the characteristics of the existing wagons are in general sufficient for the

evolutions of fork lift trucks, a few improvements might nevertheless be considered in the design of future wagons, such as :
— increasing the strength of the floor;
— increasing the width and, if possible, the height of the doorways.

In this connection interesting trials have been reported as regards wagons with sliding sides.

Mr. Discry (in French). — When we read this text we wondered what the Reporters had in mind. Obviously, they did not mean that the existing wagons met requirements, but not those of the future, and yet this is what it seems to imply. Would it not be better to replace this text by a shorter one referring to the trials carried out in Europe. The last point, which would be retained, would be preceded by : « In order to facilitate handling operations by means of fork lift trucks, the European Administrations have come to an agreement concerning the dimensions of the doors and the strength of the floor. »

We have no longer to consider, in the case of the European Administrations, either the dimensions of the doors, which are 2×2 m nor the strength of the floors, which is that of oak 45 mm thick.

Mr. Cirillo (in French). — It does not seem necessary to build different wagons when the dimensions now used are satisfactory.

Dr Wendler (in German). — It is not essential to have special wagons for parcels. The Administrations are agreed on the width of 2 m for the doors. In the case of wagons with sliding doors, these can be used for full loads but not for parcels traffic.

Mr. Marchand (in French). — I must apologise for being the cause of this argument, because I misinterpreted the reply received from the Deutsche Bundesbahn. I note that they do not think wagons with sliding doors should be used for parcels. In this case, the final paragraph should be suppressed.

The President (in French). — It would be interesting to hear the opinion of other Administrations. I hesitate about not mentioning wagons with sliding doors. Mr. DISCRY suggested retaining the final paragraph. If our German colleagues consider that wagons with sliding doors are not suitable for parcels traffic, it must not be overlooked that this is not the general opinion. The S.N.C.F. on its side is about to make trials using wagons with sliding doors for parcels. It remains to see if everyone is agreed about the modification suggested by Mr. DISCRY to avoid giving the impression in the text that the European wagon of the future will be poorly adapted to parcels traffic.

Mr. Marchand (in French). — We have thought of a text which will satisfy all the Administrations. It might be completed by a reference to the recent decision of the U.I.C. (I.R.U.).

The President (in French). — We might say : « ... as recently agreed in Europe... » inserting this after the words « future wagons ».

Mr. Discry (in French). — The word « Europe » is not very exact. There are members of the U.I.C. outside Europe.

The President (in French). — « As certain Administrations belonging to the U.I.C. have recently decided... »

Mr. Discry (in French). — « ...the member Administrations of the U.I.C. »

The President (in French). — Summary No. 25 will therefore read as follows :

« 25. If the characteristics of the existing wagons are, in general, sufficient for the evolutions of fork lift trucks, a few improvements, as recently decided upon by the Member Administrations of the I.R.U. (U.I.C.), might nevertheless be considered in the design of future wagons such as :

« — increasing the strength of the floor;

« — increasing the width and, if possible, the height of the doorways.

« In this connection, interesting trials have been reported as regards wagons with sliding sides. »

Are we all agreed? (*Agreed.*) This text is therefore *adopted*.

I now suggest bringing this meeting to an end and continuing our discussion tomorrow at 9.30 a.m.

— The meeting rose at 12.30 p.m.

Meeting of the 1st October 1958.

PRESIDENT : R. SOULARD.

— The meeting began at 9.30 a.m.

The President. — Gentlemen, during yesterday's discussions, there were one or two points which were not cleared up. First of all, you remember that Mr. DISCRY suggested making an addition to Summary No. 4., which other delegates preferred to include in Summary No. 3. It was suggested that we add to the text of this Summary, which was approved yesterday, the following parenthesis : «(by road and by rail), so that it would now read :

Summary No. 3 :

« 3. The « classic » type of organisation into regions and regional centres, based on the advantages gained by the concentration of the parcels (*by road and by rail*) at a reduced number of transit points and the making up of long distance through wagons is adopted by all the Administrations of some importance.

« It limits the number of stages and makes it possible, if the regional centres coincide with localities having an important traffic of their own, to transport a large number of parcels directly without transhipment. »

I think that everyone will agree to this wording. (*Agreed*). Consequently *Summary No. 3 is adopted*.

As for Summary No. 4, a new text has been prepared. Will the Special Reporter please read it.

Mr. Marchand (in French). — The new text is as follows : a new sentence begins the summary. Here it is : « In order to have regular through services, it is advantageous to run them two or three times a week or to operate them with road vehicles ». We have included in this way the idea that lorries may possibly be used.

To continue, we have slightly altered the text which now reads : « However, in particular, it is impossible for very extensive railway systems unless they consent to an inexcusable waste of rolling stock — to operate regular through services between all their regional centres. » The remainder has not been altered.

The President (in French). — Does this modified text meet with your approval?

Mr. Discry (in French). — We agree and we thank the Reporter. It includes both ideas; that expressed by Mr. DE BRUIN, the Netherlands Delegate, and our own.

The President (in French). — We will therefore consider *Summary No. 4 finally adopted*. The complete text is as follows :

« 4. In order to have regular through services, it is advantageous to run them two or three times a week or to operate them with road vehicles.

« However, in particular, it is impossible for very extensive railway systems — unless they consent to an inexcusable waste

of rolling stock — to operate regular through services between all their regional centres. Intermediate transshipments are unavoidable for a certain number of long-distance consignments. It is advantageous to concentrate them into a small number of selected and suitably equipped points.

« It is of advantage if such points coincide with the regional centres. »

At yesterday's meeting, a lengthy discussion took place between Messrs. BLEE and DORJEE, and we asked them to compare their opinions after the meeting and let us know this morning the result of this exchange of opinions.

I believe these Gentlemen came to an agreement, and no modification need be made to the text provisionally agreed at yesterday's meeting, for Summary No. 14.

Mr. Blee. — That is subject to what we eventually agree in regard to Summary No. 28. Mr. MARCHAND has pointed out to me that references in that Summary will cover some of the points I have made and I intend to leave it there — but I stick to what I said yesterday. This system is not peculiar to Great Britain and we shall all come to it.

Mr. Discry (in French). — I would like to know if the railways do not have special wagons for parcels, especially as regards having a self contained lighting system and racks for the parcels. Is such a technique developing? I believe I understood that the Netherlands Railways have special wagons.

Mr. Dorjee. — So far as the Netherlands are concerned, we take out one type of

wagon. This type is always used. There is a rigid regular circulation of these wagons. They are marked with yellow bands on the corners so that the marshalling people can always see that these are parcels wagons and they know that these wagons have to be taken back to the L.C.L. depots. These wagons are not specially built. They are taken out of the normal wagons pool and used for L.C.L. traffic.

Mr. Discry (in French). — Have you adopted any special arrangements?

Mr. Dorjee. — There are no special arrangements such as small stands or special lighting.

The President (in French). — The aim should be to have a stock of homogeneous wagons, all of the same length, so that when they are put side by side the doors come opposite each other and make it possible to cross over from one platform to the other without difficulty.

Mr. Marchand (in French). — To add further information on this point, I may mention that according to the report for the French speaking countries, the stock is in general of the standard type. Federal Germany, Hungary and Poland make use of covered wagons joined up by bellows, with a quite special purpose, as they allow the sorting during runs, while operating operating collection and delivery.

The President (in French). — Can anyone supply any additional information concerning the use of parcels wagons?

No-one? I will read therefore Summary No. 14 in the form in which I think it can be agreed.

« 14. The most generally prevailing tendency as regards the layout of the different areas in the large depots can be summed up as follows :

« — « consigning » areas limited to the space necessary for accepting, and if necessary, sorting parcels before conveying them to the wagons;

« — extensive « arrivals » areas because of the space needed for the storage of the parcels pending delivery.

« It should be noted that :

« — when goods are collected at the station much more room is needed than when they are home-delivered;

« — the space required for the storage of parcels at the end of the week, which parcels cannot be delivered because the shops are closed is generally becoming greater and greater owing to the social evolution taking place.

« As regards the platforms serving the sidings, their width varies dependent on the mechanisation of the handling and the amount of goods to be put onto the platforms before being loaded into the wagons. »

(Agreed.)

Summary No. 14 is therefore adopted. Yesterday, we stopped at Summary No. 25. We now come to *Chapter V : Collection and delivery services.*

Mr. Marchand (in French). — *Summary No. 26 :*

26. Many Administrations are interested in collecting and still more in delivering parcels.

Sometimes the latter operation is in-

cluded in the official rates for transport by rail and delivery is often assured either directly or through the intermediary of affiliated companies; if not, the Administrations conclude contracts with private firms in which they reserve the right of control of their services (service-times, charges).

Mr. Crem (in French). — I would like to be more definite. In Belgium, the charges for collection and delivery are included in the price.

The President (in French). — We could put in the plural : these latter operations. »

Mr. Crem (in French). — Agreed.

The President (in French). — Summary No. 26 therefore becomes :

« 26. Many Administrations are interested in collecting and still more in delivering parcels.

« Sometimes these operations are included in the official rates for transport by rail and delivery is often assured either directly or through the intermediary of affiliated companies; if not, the Administrations conclude contracts with private firms in which they reserve the right of control of their services (service-times, charges). »

No comments? (Adopted).

Mr. Marchand (in French). — *Summary No. 27 :*

27. It is necessary to synchronise the collection and delivery operations and railway timetables. This is particularly important as regards collecting parcels and the departure of the parcels trains.

As far as arrivals are concerned, the consequences of possible delays on the railway are mitigated by the fact that there are often two delivery rounds a day in the large centres.

Mr. Crem (in French). — I think this an opportune moment to ask one question to my colleagues. To reduce the operations on departure as much as possible, we are studying the mechanisation of the clerical work, such as the making out of the labels, etc.... With this technique, the documents will be replaced by mecano-graphical cards.

Mr. Blee. — In answer to Mr. CREM's question, so far as Great Britain is concerned, we have eliminated documentation for smalls entirely and in order to safeguard revenue, we record by micro film the consignment notes which are used for checking the goods on the platforms. At the destination end, the checking is performed by a listing at the train side. »

Mr. Crem (in French). — Therefore, certain Administrations have mechanised the clerical work. How are they setting out the charges and the labelling?

Mr. Blee. — In further answer, in Great Britain, the documentation for charging is done separately and is highly mechanised. The point is that it can be done at leisure. It is not a factor affecting the departure of the goods at all.

Mr. Crem (in French). — This method in sum separates the operations of taxation and of delivery. I would like to know if with the mechanisation of the clerical work, the document supplied by the consignor is in the form of a mecano-graphical card, or if this is made up at the departure station for accountancy purposes.

Mr. Blee. — I would like to make it clear that to my mind there are two separate problems in this matter. The first is to get the consignment away promptly, with the minimum of delay by documentation. The second is properly to account for the revenue. As to the first, we have found that by eliminating the invoice which was required to travel with the goods, or separately, we have eliminated delays. As to mechanisation of documentation afterwards, that is done by working from a consignment note to a punch card. I may say that the system has proved effective, first, in speeding the departure of goods; second, as a source of considerable economy, measured in Great Britain to the order of 1½ m. £ sterling a year; and third, it has increased security, both of revenue and of the transit of the goods.

Mr. Crem (in French). — My thanks to Mr. BLEE for this most interesting information.

Mr. Dorjee. — We started our own research after making a study of the British system, which we saw in Birmingham (Lawley St.) and we did not apply this system in the Netherlands owing to conditions being different.

In Holland, we have just started research into mechanisation of our departure documentation by means of punch cards.

Mr. Garfield, East African Railways & Harbours. — I would like to make a remark of a general nature. Mention is made several times in the report of « par-

cels trains ». I think that in the English terminology « parcels train » has a special meaning. Would it not be better to say goods train?

Mr. Dorjee. — In the translation I have chosen the word « parcels » because I thought it was more general and it was more applicable to all other countries, as well as being better understood by other Administrations. In English, they distinguish between parcels and sundries in a different way from that made by other Administrations. I thought I had better choose the word « parcels » than use the word « sundries » and make a distinction with parcels.

The President (in French). — Are there any comments about Summary No. 27? (*No objections*) In this case, the text is adopted without modification.

Mr. Marchand (in French). — *Summary No. 28 :*

28. The conditions under which goods are transferred to the haulage services are linked up with the delivery methods used.

Most often the parcels are loaded onto the delivery vehicles in the opposite order to that of the delivery round.

In general, the delivery man being the only one who knows the round executes the loading :

- either — usually — by collecting parcels already sorted by the railway staff and put into the bays allocated to the different areas of the town;
- or by calling out the parcels which they have on their documents which are then conveyed by the depot staff from the place where they have been stored to the delivery vehicle.

Exceptionally, the parcels are loaded into the haulier's vehicle in a casual order (which implies the use of sparsely loaded

trucks); in this case the depot staff can load the parcels as soon as they come in directly on these trucks, thus reducing the area of covered platform required for arrivals.

On the departure side, the hauliers are rarely required to classify the parcels. This is only done in stations with multiple forwarding areas for different destinations, or when there is only a very limited time to dispatch the parcels in a given direction.

One special case is that of the depots without platforms of certain Administrations; when the road vehicles can come in already sorted, the loads can be taken directly to the wagons.

Mr. Discry (in French). — I suggest suppressing the last five paragraphs. I quite understand that the Reporter wanted to precise the different ways of loading the parcels into the delivery vehicles. But with such a general text, we could easily just keep the first three paragraphs.

Mr. Tribelhorn (in French). — That would be a pity. The five last paragraphs contain some very interesting information. It is the use of road flats which makes it possible to speed up the transport. Like other Administrations, we have tried using road flats in Switzerland. I do not think it would be advantageous to shorten the report by leaving out any useful data.

Mr. Arkle, *British Railways*. — I feel also that it would be a great pity to delete these paragraphs, particularly as they refer to the practice in Great Britain, which is used very largely without exception, but I would suggest one or two changes in the text, which I think would make it a little more acceptable. First of all, referring to the paragraph starting with the words « In general » — instead

of saying « the delivery man being the only one who knows the round » suppose we say that he is the one who best knows the round.

Then coming down to the paragraph starting « Exceptionally » — I feel that this ties up with what I have just said and that the words « in a casual order (which implies the use of sparsely loaded trucks) » should be omitted and we should say :

« Exceptionally, the parcels are loaded immediately into the haulier's vehicle » and then go on to say : in this case the depot staff can... etc. because we do not find that the parcels are, in fact, loaded in casual order, because the people on the station know the rounds themselves and are able to put the load into good condition for the driver to take over and distribute.

Mr. Thorhag. — I think the paragraphs are necessary, but I want to support the proposition made by our British colleague, because that is much better than the existing text.

The President (in French). — Unlike Mr. DISCRY, two Delegates think that the paragraphs should be retained. I would like to know what the Meeting thinks.

Mr. Scherman. — For my part, I support Mr. ARKLE's suggestion, the text of which is closer to reality.

The President (in French). — The Summaries are read more often than the reports. We can keep all the paragraphs.

Mr. Discry (in French). — The Summary is indeed a very long one; could we

not cut out paragraphs 4 and 5 which explain how the parcels are loaded into the lorries.

Mr. Blee. — I share Mr. DISCRY's opinion.

The President (in French). — I see many of those present signifying their desire to retain all the text.

Mr. Discry (in French). — In that case, I will not insist.

Mr. Marchand (in French). — The Reporters consider that the modifications suggested by the British Delegates are very much to the point.

Mr. Blee. — I apologise for speaking again on this section, and I am not raising any point on the words as agreed, but may I be permitted one or two general observations. I would like to say that this problem relates both to the question of design and layout of accommodation (going back to No. 14) and also to the problem of handling and cartage for which we haven't made any reference as to relative or correct costs, and the point I would wish to make is that it is not so much saving of space and accommodation that results from co-ordinated control of handling and cartage. The systems most economically to be devised are those which eliminate duplicate handling, whilst at the same time providing conditions for the fullest and most efficient loading of cartage vehicles. These problems need to be considered as one : the handling and cartage and the accommodation.

Mr. Marchand (in French). — Mr. BLEE's remarks are most interesting. It is obvious that the British method is intended above all to reduce the handling of the parcels when being transferred from wagon to lorry. The reduction in space obtained is in fact secondary. We willingly agree.

Mr. BLEE is not asking for any modification in the text. However, it would be clearer were we to state precisely that loading the lorry directly results in a reduction in the handling and in the space required. I suggest, consequently, that we say at the end of the sixth paragraph : «... on road flats, which simplifies the handling and reduces the area. »

Mr. Dorjee. — I would like to make one remark — with the shed staff loading the vehicles, the driver has no check on what is loaded on his vehicle. When some parcel is missing, the driver can be told that he is a thief. How can the driver check the parcels? He can only do it when the truck is sparsely loaded, in only one layer, and that is the practice in Birmingham. My objection to the system — while we are making general remarks — is because the driver cannot check the parcels which are loaded by other people on to his trailer. If there are people on the shed who want to steal, they can put parcels away and the driver goes into town without them. In Holland, the driver loads and checks. He gets the documents which he sorts. He loads his vehicle and at the same time checks that all the parcels are there. Because he has checked himself, he is made responsible for the parcels being there.

Mr. Blee. — This was an apprehension expressed to us in Great Britain before we made this change. We might have had experience of it but, in fact, we have not. We think the reasons for it are of a two-fold character. First, the system which formerly applied for the checking of goods from the platform to the delivery vehicles was from delivery notes, of which the checker had a very large pile and we found, by long experience, the checker very often marked off his notes from memory; his memory was not uniformly accurate. The present system provides for the checker writing a list of the goods, one at a time, as they are put on to the road vehicles, and that drayside or road vehicle-side list has proved to be a more reliable means of safeguarding the packages than former systems. It certainly is no part of the system that the dray should be lightly loaded so that the driver may see what is on it. However, if there are any other delegates who would like to look at this system at any time, we would be delighted to make facilities available to them. It has now been in operation for a period of 4 or 5 years, and the apprehensions which were expressed to us before we introduced it have not been justified.

The President (in French). — Speaking as a French Delegate, I can support Mr. BLEE. In France, similar objections have been made. But since, we have adopted an organisation which does not involve any checking of the parcels between handling and delivery; in practice, it has been proved that the risk of difficulty or loss of parcels has been infinitesimal.

The only thing that can be objected to

the system is that it leads to the acceptance of relatively small loads for delivery in order to facilitate door-to-door deliveries. This increases the delivery costs. Lengthy experience of the system will be needed before coming to a final decision.

Mr. Dorjee. — I can only say that I congratulate British Railways. I understand from Mr. BLEE that the checker makes the list and that is what I observed in the Midlands. In spite of this, the driver cannot see what is on his vehicle. He cannot, therefore, be held responsible, and that is the problem as I see it. However, I do not think we need to pursue this point now, but I do not agree with Mr. BLEE.

Mr. Du Plessis, *South African Railways and Harbours.* — I must say I have found this discussion most interesting. But there is one point which has not been covered and I would like to hear something of the experience of other Administrations in regard to the actual delivery of parcels. When I refer to « parcels », I want to make the distinction we have in South Africa : when we refer to parcels, it is goods conveyed in passenger trains. I am referring now specially to parcels traffic which we deliver in our own vehicles or through cartage contractors. Great difficulty is experienced in effecting delivery in the large cities, more particularly at large blocks of flats, where there are considerable parking problems. Owing to people being out, or away on holiday, etc., we find our vehicles having to go to and fro several times before delivery is finally made. Parking in front of these large blocks is not permit-

ted. I am wondering whether other railways have experienced the same difficulty and how they have dealt with it.

The President (in French). — Can anyone tell Mr. DU PLESSIS what he wants to know?

Mr. Crem (in French). — We were faced with the same problem and up to the present, we have not found a solution.

Mr. Johannesson. — In Sweden, we have the same problem. We have solved it to some extent. If the consignees are not at home the first time we call, a note is left which asks them to let us know if they want the parcel delivered, or if they wish to collect it themselves at the station.

The President (in French). — I think that is a fairly widespread method. In France, we set up sometimes parcels depots near the blocks of buildings in question. But this solution involves the cost of having an employee in charge. It is impossible to lay down the law about it. In each case, it is necessary to find the cheapest solution both for the railway and its clients.

Mr. Crem (in French). — In Belgium, we make a charge if parcels have to be delivered a second time, and our additional costs are therefore covered by this charge.

Mr. Kristensen, *Danish State Railways.* — We have the same problem, but all the delivery in Denmark is done by contractors and the cost of delivery is not included in the freight service. We leave a note for

the consignee asking whether he wants anything delivered, in which case he pays the normal charge for second delivery.

Mr. Dorjee. — We have experienced the same difficulty but so far have not found a definite solution. We have the same regulations as our Swedish and Belgian colleagues have, but we hesitate between our own interests and the interests of our clients. By law, we are entitled to deliver to the doorstep, but in practice that is not in the interest of our clients — and the driver likes to get his tip from the clients.

The President (in French). — I see that the subject of Summary No. 28 has aroused great interest in the Meeting. All the essential points having been made, I think that the different modifications agreed upon allow the following text to be adopted for *Summary No. 28* :

« 28. The conditions under which goods are transferred to the haulage services are linked up with the delivery methods used.

« Most often the parcels are loaded onto the delivery vehicles in the opposite order to that of the delivery round.

« In general, the delivery man being the one who best knows the round executes the loading :

« — either — usually — by collecting parcels already sorted by the railway staff and put into the bays allocated to the different areas of the town;

« — or by calling out the parcels which they have on their documents which are then conveyed by the depot staff from

the place where they have been stored to the delivery vehicle.

« Exceptionally, the parcels are loaded into the haulier's vehicle immediately (which implies the use of sparsely loaded trucks); in this case the depot staff can load the parcels as soon as they come in directly on these trucks, thus reducing handling and the area of covered platform required for arrivals.

« On the departure side, the hauliers are rarely required to classify the parcels. This is only done in stations with multiple forwarding areas for different destinations, or when there is only a very limited time to dispatch the parcels in a given direction.

« One special case is that of the depots without platforms of certain Administrations; when the road vehicles can come in already sorted, the loads can be taken directly to the wagons.

(*Agreed*).

Mr. Marchand (in French). — *Summary No. 29* :

29. From the technical point of view the haulage vehicles should be able to pick up and distribute heavy parcels, small containers and pallets.

From the point of view of handling operations at client's premises where no platforms are available, the solutions tried : small cranes mounted on the lorries, elevating tail boards, low-loading trailers, etc., are encouraging but not always completely satisfactory.

The President (in French). — No comments (*No*).

— *Adopted without comment.*

Mr. Marchand (in French). — We will go on to *Chapter VI : Palletization. Summary No. 30* :

30. Apart from its use as a method of conveying the parcels within the depots, the pallet can be used to carry goods either during their transport in the wagons (internal palletization on the railway), or throughout the whole transport chain from the premises of the consignor to those of the consignee (general palletization).

General palletization, although it is recognised as the most advantageous, is so far the general practice in only a few countries.

Somewhat more numerous are the Administrations applying internal palletization on their railways or developing it.

However, apart from certain countries where the cost of labour is relatively low, the great majority of Administrations are interested in and have undertaken studies of palletization.

Mr. Wyrzykowski, Polish Railways, and Vice-President (in French). — Rather than saying : « The great majority of the Administrations are interested in palletization... », which might leave it to be supposed that there are others who are not interested in it, I would prefer : « The great majority of the Administrations have undertaken studies or trials in connection with palletization. »

The President (in French). — I agree.

Mr. Discry (in French). — For the second paragraph, I suggest : « General palletization is recognised as being the most advantageous, but involves cooperation from clients, so is not the current practice in most countries. »

The third paragraph reports a transitory phase. It should be explained why general palletization is not practised by some Administrations whereas it is by others.

The President (in French). — Mr. DISCRY's point is that it is due to obstacles in the collaboration of the public that palletization has not become general.

Mr. Marchand (in French). — So that it is a question of making the point that it is because they are unable to practice general palletization that some railways limit themselves to internal palletization.

The President (in French). — Would the Reporters please think about this problem of the wording and if possible make some suggestion before the end of the meeting, so that we can adopt this summary today. In the meantime, I propose going on to the next Summary (*Agreed*).

Mr. Marchand (in French). — *Summary No. 31 :*

31. Those Administrations who have some experience of internal palletization on the railway, or of general palletization, stress the advantages of the pallet for the transport of heavy parcels or grouped consignments; they are of an opinion that palletization has made it possible to obtain :

- a very marked improvement in the quality of transport (speeding up the dispatch, reducing damage and loss);
- great saving in labour;
- less fatigue for the staff and fewer accidents during handling.

In addition, general palletization enables clients :

- to make savings in handling during the consigning and delivery of goods;
- to facilitate and render the storing of goods more economical;
- to use lighter packing when box-pallets are used.

Mr. Crem (in French). — I am wondering if the economies are very great in

the case of internal palletization. We understood from the comments previously made that palletization should be made general if important economies are to be obtained, and that internal palletization merely results in a certain improvement in the services. So that I suggest we add : in the case of general palletization. »

Mr. Marchand (in French). — From the reports, it is clear that those countries practising internal palletization consider that savings in labour are possible and are made. They are not very great, but they do exist.

Mr. Crem (in French). — We might agree if we suppressed the word « considerable » and simply said « economies. »

Mr. Tribelhorn (in French). — Might we not mention the instruction of the staff. To obtain advantages from palletization, the instruction of the staff must be thorough, as the method of working is quite different from previous methods. The foremen and staff must be made to understand the object of the innovation. This at least is essential.

The President (in French). — That is quite right. But this applies whenever a new technique is introduced. Whenever the organisation is changed, the staff whose working habits are going to be changed must be very carefully trained to start with. Does the Meeting really consider it necessary to introduce this idea into our Summaries ?

D^r Wendler (in German). — The use of fork lift trucks and pallets has allowed

the Deutsche Bundesbahn to make savings. However, these are relatively low in the old goods installations, per example where the sheds are narrow, the floor in bad condition, the platforms too narrow or not protected, etc..., as it is not possible then to make full use of the advantages offered by the fork lift trucks and the pallets.

The President (in French). — Thank you D^r WENDLER for this precision, and Mr. TRIBELHORN will you please say if you suggest any modification in the text ?

Mr. Tribelhorn (in French). — It would be sufficient to say : « on condition the staff is well instructed . »

The President (in French). — The training of the staff is an expense, and it would seem more logical to mention it in Summary No. 32.

Mr. Tribelhorn (in French). — I would prefer to include it in Summary No. 31, because in my opinion the training of the staff is more than an expense, it is an essential condition for obtaining the expected benefits.

The President (in French). — Then, we might modify the text as follows : « they consider that provided the staff is suitably trained, palletization makes it possible to obtain... »

Mr. Tribelhorn (in French). — Agreed.

Mr. Thorhag. — At the end of the last paragraph, I would suggest to say : « when box pallets or stacking pallets are used ».

The President (in French). — Does the Meeting agree? (*Agreed*).

— *Summary No. 31 is therefore adopted with the following wording :*

« 31. Those Administrations who have some experience of internal palletization on the railway, or of general palletization, stress the advantages of the pallet for the transport of heavy parcels or grouped consignments; they are of an opinion that palletization has made it possible provided that the staff is suitably trained to obtain :

« — a very marked improvement in the quality of transport (speeding up the dispatch, reducing damage and loss);

« — saving in labour;

« — less fatigue for the staff and fewer accidents during handling.

« In addition, general palletization enables clients :

« — to make savings in handling during the consigning and delivery of goods;

« — to facilitate and render the storing of goods more economical;

« — to use lighter packing when box-pallets or stacking pallets are used.

Mr. Marchand (in French). — *Summary No. 32 :*

32. Palletization must be debited with :

— the additional costs due to the purchase of the pallets and the equipment used to handle them, as well as the corresponding maintenance costs;

— the cost of labour for stowing the parcels on the pallets and in the boxpallets, which stowing has to be done with great care;

— the increase in the dead weight to be carried by rail and road;

— any transport of empties.

Mr. Discry (in French). — I suggest suppressing in the last paragraph the word « éventuels » (any). There are always empties to be transported.

The President (in French). — No more comments? Summary No. 32 is therefore adopted with the slight modification suggested by Mr. DISCRY.

— *The text approved reads as follows :*

« 32. Palletization must be debited with :

« — the additional cost due to the purchase of the pallets and the equipment used to handle them, as well as the corresponding maintenance costs;

« — the cost of labour for stowing the parcels on the pallets and in the box-pallets, which stowing has to be done with great care;

« — the increase in the dead weight to be carried by rail and road;

« — transport of empties. »

Mr. Marchand (in French). — *Summary No. 33 :*

33. The influence of palletization on the average load of wagons is controversial; many countries still have insufficient experience and the estimates which could be made also depend upon the average load of the wagons before palletization. Certain countries have found that there is a reduction in the average load but consider that this does not lead to any major disadvantage provided the runs are not too long.

It is essential to stack the pallets in order to get good loads.

On the other hand, the use of the pallet may favour a good use of the wagons by making it possible to tranship as well as store economically :

— the reduction in the cost of transhipment operations may make it possible to

- give up certain traffic by direct wagons of small or average tonnage;
- the easy storing on departure may make it possible to run through-wagons for the long distance services with little traffic at longer intervals (every other day or three times a week) with full loads.

Mr. Crem (in French). — Stacking the pallets must increase the risk of damage.

The President (in French). — It is essential to stack the pallets in order to obtain good user of the stock.

Mr. Crem (in French). — I agree, but damage caused by stacking must be feared.

Mr. Kristensen. — I think it might be useful here to mention a fact we have noticed. We have studied the question for several years. The full use of palletization has not enabled us to get the same average loading of wagons than with the old system; however, I am not asking for any alteration in the suggested text.

Mr. Wyrzykowski (in French). — The good user of the wagons includes both the good user of their capacity and a quick turn round. The direct influence of stacking is to improve the user of the wagon capacity.

I suggest altering the wording of the second paragraph as follows : « It is essential to stack the pallets in order to obtain a good user of the wagon capacity. »

The President (in French). — I think the Meeting will agree with this. Summary No. 33 would be revised as follows :
« 33. The influence of palletization

on the average load of wagons is controversial; many countries still have insufficient experience and the estimates which could be made also depend upon the average load of the wagons before palletization. Certain countries have found that there is a reduction in the average load but consider that this does not lead to any major disadvantage provided the runs are not too long.

« It is essential to stack the pallets in order to get good use of the capacity of the stock.

« On the other hand, the use of the pallet may favour a good use of the wagons by making it possible to tranship as well as store economically :

« — the reduction in the cost of transshipment operations may make it possible to give up certain traffic by direct wagons of small or average tonnage;

« — the easy storing on departure may make it possible to run through-wagons for the long distance services with little traffic at longer intervals (every other day or three times a week) with full loads. »

— *Adopted.*

Mr. Marchand (in French). — *Summary No. 34 :*

34. The proportion of traffic that is palletizable is high; countries where internal palletization on the railway is the current practice estimate that it can cover 70 % or even more of the traffic.

However, the number of small parcels, light parcels and unpacked parcels as well as their heterogeneity from the point of view of types of packings used gives rise to problems which are being solved :

— either by fastening the loads placed on

ordinary pallets (very careful arrangement of the parcels in brickwork fashion, hooping, sticking, adhesive tape, etc.);

— or by using box-pallets.

However, box-pallets are costly and the economic results of palletization are the better, the more simple pallets can be used, which would be facilitated by a rational standardisation of packings.

The President (in French). — Has no one any comments to make about this Summary (*No*).

This text is therefore *adopted*.

Mr. Marchand (in French). — *Summary No. 35* :

35. From the point of view of carrying out the railway transport, there should only be a few types of pallets, which should all have the same basic dimensions to make stacking possible.

These basic dimensions result from the interior dimensions of the wagons.

The pallets must be firmly constructed to be able to withstand the numerous handling and transport operations they will have to undergo.

However, in some countries there is a tendency to use more fragile soft woods for simple pallets, owing to the national timber resources.

Box-pallets are generally made of metal and have embedded ridges on top to allow them being stacked. Some are collapsible, but these are more fragile and expensive.

There are three types of open box-pallets :

- rigid box-pallets with V shaped opening;
- rigid box-pallets with collapsible sides;
- box-pallets with removable sides.

Closed box-pallets are replacing with advantage the small containers formerly used both in inland and international services (transport of bonded goods).

Mr. Crem (in French). — We should say that the pallets must be of robust construction, but it is not necessary to

refer to the quality of the wood. · So I suggest suppressing paragraph 4.

Mr. Marchand (in French). — The Reporters thought that it was interesting to mention that those countries which use soft woods do so because other woods are not available.

Mr. Crem (in French). — It is not the only reason, and adds nothing, it seems, to the advantage of pallets.

Mr. Dorjee. — I think it is of great importance to mention the quality of the wood to be used. There is a National Technical Institute in Holland, which has conducted research into different constructions and different kinds of wood used for pallets, and the damage which results from using those different kinds of wood. After considering the reports received from that Institute, I have concluded that it is best to use the strongest kind of timber.

Mr. Thorhag. — I would like to support our Belgian colleague. In Sweden, we make use of softwood, as we are short of hardwood, and yet our pallets are not so very fragile; they can stand up to three years service; their price at present is 15 crowns compared with double the amount for a pallet made of another wood. I would like paragraph 4 to be suppressed. On the other hand, in the first paragraph, I suggest we be more formal and state that there should be only *one* type of pallet.

Mr. Dorjee. — We agreed to delete paragraph 4.

The President (in French). — There are other instances concerned with the problem of the material, which have not been definitely settled up to the present. We have still to get the wording of the sentence stating that the types of palettes must be few.

Mr. Marchand (in French). — It cannot be avoided to use several types of pallets (simple pallets, box-pallets, etc...), but it is essential that these categories should be based on a single standard size.

Mr. Thorhag. — We must avoid confusion. It is possible to have only one type of pallet, but different dimensions.

Dr Wendler (in German). — In this connection, I might point out that certain Administrations do not consider box-pallets as coming into the category of pallets, but rather that of small containers. From the tariff point of view, these box-pallets are then considered as containers.

The President (in French). — But all the same, box-pallets must be mentioned. Should the first paragraph be altered. What wording does Mr. THORHAG want?

Mr. Thorhag. — The words « formerly used » in the last paragraph of the English text do not please me; they do not come in the French text. Small containers are still used in many countries; in Sweden, we load some 100 000 of them each year.

The President (in French). — I suggest we ask Mr. THORHAG to prepare a new text for Summary No. 35. (*Agreed*).

Mr. Marchand (in French). — *Summary No. 36 :*

36. Palletization has been favourably received by the staff; in particular the staff responsible for loading the pallets has clearly understood that the delicate job entrusted to them relieves the efforts of the staff responsible for handling operations.

Mr. Tribelhorn (in French). — Could we not say « physical efforts »?

Dr Wendler (in German). — Palletization has been favourably received by the staff, but only when the latter has been suitably trained.

The President (in French). — The training of the staff was referred to in Summary No. 31. I think that was the best place. If the Meeting agrees, Summary No. 36 will therefore be slightly modified to read :

« 36. Palletization has been favourably received by the staff; in particular the staff responsible for loading the pallets has clearly understood that the delicate job entrusted to them relieves the physical efforts of the staff responsible for handling operation. »

— *Adopted.*

Mr. Marchand (in French). — *Summary No. 37 :*

37. It is difficult to draw up any balance sheet for palletization, but on the whole those Administrations with sufficient experience of this technique consider that it is economically justified as far as the railways are concerned.

In addition, palletization is a means of considerably reducing handling at a time when in many countries there is difficulty in recruiting staff for work of this kind.

The above Administrations are also persuaded of the value of palletization in the field of the general economy and of the development of this technique in commerce and industry. It is important therefore that the railway, being already in a position to profit from this development by reason of the favourable characteristics of its stock, should strengthen this favourable initial position as regards competition by taking all possible suitable commercial steps.

— *Adopted without discussion.*

Mr. Marchand (in French). — *Summary No. 38 :*

38. In order to assist consignors who are palletizing their consignments and taking into account the benefits the Administrations draw from this, the latter have introduced a certain number of tariff measures :

- the tare of the pallets is not taken into account in determining the weight of the load to be charged, a weight limit being laid down;
- attractive rates for client's pallets returned empty;
- railway pallets are supplied free of charge or at a small hire.

Some of these advantages are scaled down in such a way as to favour clients using pallets of a type similar to those adopted by the Railway Administrations themselves.

Moreover upper and lower weight-limits have been laid down, on the one hand to take into account the power of the handling equipment and on the other, to obtain a sufficient load.

— **The President** (in French). — Has no one any objections to make?

— This text is therefore *adopted*.

Mr. Marchand (in French). — *Summary No. 39 :*

39. In order to reduce the systematic empty returns of client's pallets all Administrations have set up or are considering setting up pallet pools.

This makes it essential for those con-

cerned to use pallets absolutely identical with those belonging to the railway.

The periods within which the compensation of supply and return must be effected are laid down by agreement. Certain Administrations accept the principle of immediate compensation which, whilst being favourable for clients, also has certain advantages for the railway at times.

Mr. Tribelhorn. — On the basis of our experience of pools set up with clients, it appears that it is most important to check the exchanges regularly. After ten years experience, we made an inventory and found we were some thousands of pallets short.

The President (in French). — I support Mr. TRIBELHORN's remarks, and might add that amongst the clients that must be watched are the other departments of the railway

Has the Meeting no other comments to make?

— *Summary No. 39 is therefore adopted without modification.*

Mr. Marchand (in French). — *Summary No. 40 :*

40. In view of the development of international traffic, many Administrations are of an opinion that the exchange of palletized loads transported under this regime should be facilitated and even that pools should be set up, in order to reduce the traffic of empty pallets.

This measure would also make it possible to extend the sphere of action and value of the national pools already set up and to facilitate frontier crossings (handling and customs operations). International pools, however, like pools with clients, imply standardisation of the types of pallets used and agreements in this connection are in the course of preparation.

Mr. Thorhag. — I would like to ask the Reporter if there is a single Administration not in favour of an international pool of pallets?

Mr. Marchand (in French). — One is never certain of being quite accurate. That was why we were prudent.

Mr. Dorjee. — If we would generalize, certain Administrations who are not using palletization might be against it.

Mr. Discry (in French). — We might say : « the general opinion of the Administrations is that... »

The President (in French). — It seems to me that we can reach agreement with this formula. Summary No. 40 will therefore become :

« 40. In view of the development of international traffic, the general opinion of Administrations is that the exchange of palletized loads transported under this regime should be facilitated and even that pools should be set up, in order to reduce the traffic of empty pallets.

« This measure would also make it possible to extend the sphere of action and value of the national pools already set up and to facilitate frontier crossings (handling and customs operations). International pools, however, like pools with clients, imply standardisation of the types and dimensions of pallets used; agreements in this connection are in the course of preparation. »

— *Adopted.*

The President (in French). — This brings us to the end of our Summaries, but we have to return to Summary No. 35, for which we have not yet adopted any text.

Mr. Scherman. — In my opinion, this is what we might say : « From the point of view of railway transport, the types of pallets should be few and they should have standardised basic dimensions. »

The President (in French). — Summary No. 35 will be worded as follows :

« 35. From the point of view of carrying out the railway transport, there should only be a few types of pallets, which should all have unified basic dimensions.

« These basic dimensions result from the interior dimensions of the wagons.

« The pallets must be firmly constructed to be able to withstand the numerous handling and transport operations they will have to undergo.

« Box-pallets are generally made of metal and have embedded ridges on top to allow them being stacked. Some are collapsible, but these are more fragile and expensive.

« There are three types of open box-pallets :

« — rigid box-pallets with V shaped opening;

« — rigid box-pallets with collapsible sides;

« — box-pallets with removable sides.

« Closed box-pallets are replacing with advantage the small containers both in inland and international services (transport of bonded goods). »

— *Agreed.*

The President (in French). — Finally, there remains to complete Summary No. 30.

Mr. Marchand (in French). — There were no comments about the first paragraph. We suggest wording the rest of the Summary as follows :

« General palletization is recognised as the most advantageous; however, as it necessitates the co-operation of the clientele, it is as yet, practised on a large scale in only a few countries. « More numerous are the countries which, whilst pursuing this objective, practise or develop internal palletization on their railway.

« The great majority of Administrations have undertaken studies or trials of palletization.

The President (in French). — Is this new wording acceptable?

Mr. De Bruin (in French). — In certain countries, palletization will be successfully generalised with the collaboration of the clientele, but not in others.

The President. — I will read the text again :

« 30. Apart from its use as a method

of conveying the parcels within the depots, the pallet can be used to carry goods either during their transport in the wagons (internal palletization on the railway), or throughout the whole transport chain from the premises of the consignor to those of the consignee (general palletization).

« General palletization is recognised as the most advantageous; however, as it necessitates the co-operation of the clientele it is as yet, practised on a large scale in only a few countries.

« More numerous are the countries which, whilst pursuing this objective, practise or develop internal palletization on their railway.

« The great majority of Administrations have undertaken studies or trials of palletization. »

Does the Meeting agree? (*Adopted*).

This brings us to the end of the discussion on Question 5.

It is my agreeable duty to turn towards the Reporters and offer Messrs. DORJEE and MARCHAND our sincerest thanks for the competent and pleasant way they have replied to all the questions asked, placing at our disposal all their knowledge and experience (*Applause*). We will meet again tomorrow at 9.30 a.m.

— The meeting rose at 12.30.

DISCUSSION AT THE PLENARY SESSION.

Meeting of the 3rd October 1958.

PRESIDENT : Sr. D. AGUSTÍN PLANA.

GENERAL SECRETARIES : MESSRS P. GHILAIN AND J. PÉREZ POZUELO.

The President (in French). — We will now examine the Summaries for Question 5.

Mr. Ghilain, *General Secretary*, read the Summaries adopted at the meetings of the Section, which were published in Nos. 2 and 3 of the *Daily Journal of the Congress*.

(*The examination of these Summaries did not give rise to any comment*).

The President (in French). — We can therefore consider the Summaries for Question 5 as ratified.

SUMMARIES.

I. General observations.

« 1. The relative importance of the
« parcels traffic differs appreciably from
« one country to another. It is linked
« up with the economic and social struc-
« ture of each country and also, natu-
« rally, with the general organisation of
« its transport.

« Each Administration must not over-
« look such parallelism, as the evolution
« of these structures affects the parcels
« traffic and requires decisions to be
« reached concerning the organisation
« and measures of adaptation to be
« taken.

« 2. The permanent objective to be
« aimed at is to improve the parcels
« traffic both as regards quality (rapidity
« and regularity of transport, no da-
« mage, door-to-door transport) and
« costs.

« In this connection it is essential :

« — to reduce handling operations;

« — to mechanise such handling;

« — to make good use of the wagons.

« 3. The « classic » type of organisa-
« tion into regions and regional centres,
« based on the advantages gained by the
« concentration of the parcels (by road
« and by rail) at a reduced number of
« transit points and the making up of
« long distance through-wagons is adopt-
« ed by all the Administrations of some
« importance.

« It limits the number of stages and
« makes it possible, if the regional cen-
« tres coincide with localities having an
« important traffic of their own, to
« transport a large number of parcels
« directly without transshipment.

4. In order to have regular through
« services, it is advantageous to run
« them two or three times a week or to
« operate them with road vehicles.

« However, in particular, it is impossible for very extensive railway systems — unless they consent to an inexcusable waste of rolling stock — to operate regular through services between all their regional centres. Intermediate transhipments are unavoidable for a certain number of long-distance consignments. It is advantageous to concentrate them into a small number of selected and suitably equipped points.

« It is of advantage if such points coincide with the regional centres.

« 5. Within the framework of the classic organisation, a free hand can to some extent be given to the stations to run other wagons than regular ones. The conditions under which such wagons are put in operation must be linked up with the length of the runs they have to make; the longer the run the more necessary it is to get sufficient use of such wagons.

« This method, which can be used by all the consigning stations, makes it possible to avoid transhipments (transshipment at the centre station of the departure region or even at the centre station of the arrival region).

« Certain Administrations use this method in the transshipment stations as well, but the rational use of such wagons then presupposes a preliminary knowledge of the actual traffic :

« — either by a preliminary storing of the parcels on the platforms, which involves additional handling;

« — or by preparing the work of the depots concerned from the waybills

« when these are sent with the wagons or by a parcels traffic planning.

« 6. Certain Administrations use the transport documents to regulate the forwarding of the parcels. Carried out in somewhat various ways, such an organisation makes it easier to :

« — determine the cause and responsibility in case of delay, loss or damage;

« — organise and control the handling operations.

« In other countries, the transport documents are forwarded separately and are only checked against the parcels on arrival. Such an arrangement simplifies and appreciably speeds up the loading and unloading of the wagons at departure or en route.

« 7. In many countries, the checking at departure and arrival has been considerably simplified in order to speed up the work and reduce costs.

II. Goods depots.

« 8. In depots where no transhipments take place, it is recommended that there should be areas for the handling of incoming and outgoing goods under one roof.

« This arrangement makes it possible to reduce the staff required for handling, and facilitates the supply of empty stock (wagons and pallets) to the « outgoing » area.

« It may make it possible to deal with seasonal variations in the traffic by extending one area at the expense of the other, or even exceptionally, pro-

« vided door to door deliveries are carried out immediately by the delivery service, to use the same area for both purposes: handling at arrival in the morning and forwarding in the evening.

« In the interest of the customers, it is desirable to avoid forwarding in separate buildings allocated to different destinations.

« 9. In stations with a transshipment area, especially in the regional centres, it is advantageous, in order to obtain a greater concentration of parcels, to juxtapose:

« — the « transshipment » and « arrival » or « transshipment » and « departure » areas, according to the amount of traffic that can be combined in this way;

« — or even, better still, to combine all the areas into a « single depot ».

« 10. Railway depots must be, as far as possible:

« close to the industrial and commercial areas of the towns they serve;

« have convenient road access and a long road frontage which can be extended should the road services eventually be further developed;

« and have easy connection by rail with the reception and formation sidings for the parcels trains; for this purpose the marshalling yard should be as close as possible to the depots.

« 11. Most of the depots with small or average traffic are so designed that they have an extensive length and can be served by a single siding, or two at the most.

« Large depots, especially those which include a transshipment area must, on the other hand, be planned on compact lines so as to reduce the distance goods have to be conveyed over; they are therefore always served by several sidings.

« Arrangements which include dead-end sidings and a platform at right angles to them avoid the operations of conveying the goods and bringing in or taking away wagons interfering with each other.

« 12. When it is necessary to cross over the sidings to get from one platform to another (as in the case of very long platforms or depots served from both ends), the goods can be handled by going through the wagons or else, use can be made of flat wagons arranged for this purpose, or finally in the case of large installations, fixed bridges with a moveable deck can be used.

« 13. The design, space required and division of the handling areas depend mainly upon the following factors:

« — the amount of goods to be handled and the relative volume of the peak traffic;

« — the ratio in amounts of incoming, outgoing and transshipment goods;

« — the number of destinations over which the traffic is spread and the number of delivery zones;

« — the existence of collection and delivery services belonging to or attached to the railway;

« — the system of dispatch;

« — the method of working adopted
« with or without mechanisation of
« handling operations.

« 14. The most generally prevailing
« tendency as regards the layout of the
« different areas in the large depots can
« be summed up as follows :

« — « consigning » areas limited to
« the space necessary for accepting, and
« if necessary, sorting parcels before
« conveying them to the wagons;

« — extensive « arrivals » areas be-
« cause of the space needed for the
« storage of the parcels pending delivery.

« It should be noted that :

« — when goods are collected at the
« station much more room is needed
« than when they are home-delivered;

« — the space required for the stor-
« age of parcels at the end of the week,
« which parcels cannot be delivered be-
« cause the shops are closed is generally
« becoming greater and greater owing to
« the social evolution taking place.

« As regards the platforms serving the
« sidings, their width varies dependent
« on the mechanisation of the handling
« and the amount of goods to be put
« onto the platforms before being loaded
« into the wagons.

« 15. The development of mechan-
« ised handling makes it necessary to
« see that there are no obstacles on the
« platforms and that these have good
« running surfaces.

« In nearly every country the height
« of the platforms corresponds with that
« of the floors of railway vehicles
« (1.15 m to 1.2 m = 3' 9 3/8" to

« 3' 11 1/4"), so that goods are handled
« on the same level.

« There are difficulties on the road
« side in every case, since the floors of
« private lorries and delivery vehicles
« are at very varying levels.

« In order to handle heavy parcels,
« pallets and small containers, in spite
« of such differences in level, certain
« Administrations use fixed bridges or
« moveable ones operated by jacks.

« In this connection some standar-
« disation of the different categories of
« road vehicles would be advisable.

III. Traditional handling.

« 16. The wheelbarrows, stillages and
« hand trucks commonly used in the
« small stations are also adequate equip-
« ment in the large depots for all hand-
« ling of goods of low weight or small
« size within a limited radius of action.

« 17. In the large depots, when the
« goods have to be conveyed over longer
« distances, it is essential, in order to
« reduce costs, to group the parcels into
« larger units for internal transport and
« to mechanise their conveyance.

« This is effected by loading them
« onto power trucks, or on trailers or
« semi-trailers which are then coupled
« to tractors. Some countries also make
« use of overhead or underground trac-
« tion-chains to which trucks are
« coupled. Belt conveyors are rarely
« used to move the parcels in this way.

« 18. Assembling quantities of par-
« cels for grouped handling generally
« implies their preliminary sorting per
« destination.

« In the large depots, where the parcels are grouped for many different directions, it is generally necessary to set up several special sorting areas, which involves additional handling.

« These operations can also be carried out by making a preliminary simplified sorting of the parcels and by using « distributing trucks », which are in fact mobile platforms running alongside the wagons to be loaded in the yards (depots without platforms).

« 19. The sorting of parcels can be facilitated :

« — in the area in which the wagons are unloaded, by using slat-conveyors or unloading machines;

« — in the area where small parcels are sorted, by using conveyor belts.

« 20. With a few rare exceptions, the special handling equipment is used in particular where heavy parcels are concerned.

« In the large depots the movable hoists formerly used for this purpose are being replaced to an increasing extent either by fork lift trucks, or, in the case of very heavy parcels which are not loaded outside the shed by 1 t to 3 t mobile cranes working inside the shed, or large-capacity fork lift trucks.

IV. Handling by means of pallets.

« 21. When used for moving parcels in the depots the pallet has the following advantages :

« the handling of heavy parcels which is difficult with truck on account of their inevitable loading height is facilitated;

« the pallet provides a means of storage for the parcels either by stacking the pallets or by placing them on racks; the use of pallets is therefore extremely advantageous in depots where space is scarce.

« 22. To be economic, handling and conveyance should be carried out :

« over short distances, by hand pallet trucks on simple rollers or, better still, of the bogie type, or by pedestrian-controlled power fork lift trucks;

« in the case of moderate distances (50 to 150 m = 55 to 165 yds.) by rider-controlled fork-lift trucks;

« for longer distances, by trains consisting of lift trucks and trolleys. The fork lift trucks can then be used as tractors if they are powerful and fast enough. Traction chains can also be used for this, hauling either trolleys loaded with pallets or hand operated fork lift trucks which are loaded.

« 23. The fork lift trucks have internal combustion engines or electric motors.

« The purchase price of the former is lower, but the operational costs are higher. In general, they are faster so that they are likely to be preferred in depots of extensive length; the Administrations using them do not report any serious trouble arising from exhaust gases.

« The characteristics of the fork lift trucks depend on the dimensions of the pallets used and those of the vehicles to be served (width of the wagons, width and height of the doorways, etc.).

« The load which they can handle is
« limited by the strength of the wagon
« floors; it seems to be correct that a
« load of 1 t is sufficient for most Rail-
« way Administrations.

« Mention should be made of the use
« of devices with mobile forks or mobile
« lift-frames (adjustable or retractable)
« intended to facilitate the manoeuvres
« of the empty or loaded equipment.

« 24. Many Administrations would
« like to be able to buy for their small
« depots, simpler and cheaper hand
« pallet trucks and stackers, in principle,
« purely mechanically operated.

« Improvements to fork lift trucks
« from the point of view of their dead
« weight and manoeuvrability (radius of
« gyration, size) are also desired.

« 25. If the characteristics of the
« existing wagons are, in general, suffi-
« cient for the evolutions of fork lift
« trucks, a few improvements, as recently
« decided upon by the Member Admi-
« nistrations of the I. R. U. (U. I. C.),
« might nevertheless be considered in the
« design of future wagons such as :

« increasing the strength of the floor;
« increasing the width and, if possible,
« the height of the doorways.

« In this connection, interesting trials
« have been reported as regards wagons
« with sliding sides.

V. Collection and delivery services.

« 26. Many Administrations are in-
« terested in collecting and still more in
« delivering parcels.

« Sometimes these operations are in-

« cluded in the official rates for trans-
« port by rail and delivery is often as-
« sured either directly or through the
« intermediary of affiliated companies;
« if not, the Administrations conclude
« contracts with private firms in which
« they reserve the right of control of
« their services (service-times, charges).

« 27. It is necessary to synchronise
« the collection and delivery operations
« and railway timetables. This is parti-
« cularly important as regards collecting
« parcels and the departure of the par-
« cels trains.

« As far as arrivals are concerned, the
« consequences of possible delays on the
« railway are mitigated by the fact that
« there are often two delivery rounds a
« day in the large centres.

« 28. The conditions under which
« goods are transferred to the haulage
« services are linked up with the delivery
« methods used.

« Most often the parcels are loaded
« onto the delivery vehicles in the op-
« posite order to that of the delivery
« round.

« In general, the delivery man being
« the one who best knows the round
« executes the loading :

« — either — usually — by collect-
« ing parcels already sorted by the rail-
« way staff and put into the bays allo-
« cated to the different areas of the
« town;

« — or by calling out the parcels
« which they have on their documents
« which are then conveyed by the depot
« staff from the place where they have
« been stored to the delivery vehicle.

« Exceptionally, the parcels are loaded
 « into the haulier's vehicle immediately
 « (which implies the use of sparsely
 « loaded trucks); in this case the depot
 « staff can load the parcels as soon as
 « they come in directly on these trucks,
 « thus reducing handling and the area
 « of covered platform required for ar-
 « rivals.

« On the departure side, the hauliers
 « are rarely required to classify the par-
 « cels. This is only done in stations
 « with multiple forwarding areas for
 « different destinations, or when there is
 « only a very limited time to dispatch
 « the parcels in a given direction.

« One special case is that of the depots
 « without platforms of certain Admi-
 « nistrations; when the road vehicles can
 « come in already sorted, the loads can
 « be taken directly to the wagons.

« 29. From the technical point of
 « view the haulage vehicles should be
 « able to pick up and distribute heavy
 « parcels, small containers and pallets.

« From the point of view of handling
 « operations at client's premises where
 « no platforms are available, the solu-
 « tions tried : small cranes mounted on
 « the lorries, elevating tail boards, low-
 « loading trailers, etc., are encouraging
 « but not always completely satisfactory.

VI. Palletization.

« 30. Apart from its use as a method
 « of conveying the parcels within the
 « depots, the pallet can be used to carry
 « goods either during their transport in
 « the wagons (internal palletization
 « on the railway), or throughout the

« whole transport chain from the pre-
 « mises of the consignor to those of the
 « consignee (general palletization).

« General palletization is recognised
 « as the most advantageous; however, as
 « it necessitates the co-operation of
 « the clientele, it is as yet, practised on
 « a large scale in only a few countries.

« More numerous are the countries
 « which, whilst pursuing this objective,
 « practise or develop internal palletiza-
 « tion on their railway.

« The great majority of Administra-
 « tions have undertaken studies or trials
 « of palletization.

« 31. Those Administrations who have
 « some experience of internal palletiza-
 « tion on the railway, or of general pal-
 « letization, stress the advantages of the
 « pallet for the transport of heavy par-
 « cels or grouped consignments; they
 « are of an opinion that palletization has
 « made it possible provided that the staff
 « is suitably trained to obtain :

« — a very marked improvement in
 « the quality of transport (speeding up
 « the dispatch, reducing damage and
 « less);

« — saving in labour;

« — less fatigue for the staff and
 « fewer accidents during handling.

« In addition, general palletization
 « enables clients :

« — to make savings in handling
 « during the consigning and delivery of
 « goods;

« — to facilitate and render the stor-
 « ing of goods more economical;

« — to use lighter packing when box-
 « pallets or stacking pallets are used.

« 32. Palletization must be debited
« with :

« — the additional cost due to the
« purchase of the pallets and the equip-
« ment used to handle them, as well as
« the corresponding maintenance costs;

« — the cost of labour for stowing
« the parcels on the pallets and in the
« box-pallets, which stowing has to be
« done with great care;

« — the increase in the dead weight
« to be carried by rail and road;

« — transport of empties.

« 33. The influence of palletization
« on the average load of wagons is con-
« troversial; many countries still have
« insufficient experience and the esti-
« mates which could be made also de-
« pend upon the average load of the
« wagons before palletization. Certain
« countries have found that there is a
« reduction in the average load but con-
« sider that this does not lead to any
« major disadvantage provided the runs
« are not too long.

« It is essential to stack the pallets
« in order to get good use of the capa-
« city of the stock.

« On the other hand, the use of the
« pallet may favour a good use of the
« wagons by making it possible to tran-
« ship as well as store economically :

« — the reduction in the cost of tran-
« shipment operations may make it pos-
« sible to give up certain traffic by direct
« wagons of small or average tonnage;

« — the easy storing on departure
« may make it possible to run through-
« wagons for the long distance services
« with little traffic at longer intervals

« (every other day or three times a
« week) with full loads.

« 34. The proportion of traffic that is
« palletizable is high; countries where
« internal palletization on the railway is
« the current practice estimate that it
« can cover 70 % or even more of the
« traffic.

« However, the number of small par-
« cels, light parcels and unpacked par-
« cels as well as their heterogeneity from
« the point of view of types of packings
« used gives rise to problems which are
« being solved :

« — either by fastening the loads
« placed on ordinary pallets (very care-
« ful arrangement of the parcels in brick-
« work fashion, hooping, sticking, adhe-
« sive tape, etc.);

« — or by using box-pallets.

« However, box-pallets are costly and
« the economic results of palletization
« are the better, the more simple pallets
« can be used, which would be facilitated
« by a rational standardisation of pack-
« ings.

« 35. From the point of view of car-
« rying out the railway transport, there
« should only be a few types of pallets,
« which should all have unified basic
« dimensions.

« These basic dimensions result from
« the interior dimensions of the wagons.

« The pallets must be firmly cons-
« tructed to be able to withstand the
« numerous handling and transport oper-
« ations they will have to undergo.

« Box-pallets are generally made of
« metal and have embedded ridges on

« top to allow them being stacked.
« Some are collapsible, but these are
« more fragile and expensive.

« There are three types of open box-pallets :

« rigid box-pallets with V shaped
« opening;

« — rigid box-pallets with collapsible
« sides;

« — box-pallets with removable sides.

« Closed box-pallets are replacing
« with advantage the small containers
« both in inland and international services (transport of bonded goods).

« 36. Palletization has been favourably received by the staff; in particular
« the staff responsible for loading the
« pallets has clearly understood that the
« delicate job entrusted to them relieves
« the physical efforts of the staff responsible for handling operations.

« 37. It is difficult to draw up any
« balance sheet for palletization, but on
« the whole those Administrations with
« sufficient experience of this technique
« consider that it is economically justified as far as the railways are concerned.

« In addition, palletization is a means
« of considerably reducing handling at
« a time when in many countries there
« is difficulty in recruiting staff for work
« of this kind.

« The above Administrations are also
« persuaded of the value of palletization
« in the field of the general economy
« and of the development of this technique in commerce and industry. It is
« important therefore that the railway,

« being already in a position to profit
« from this development by reason of
« the favourable characteristics of its
« stock, should strengthen this favourable initial position as regards competition by taking all possible suitable
« commercial steps.

« 38. In order to assist consignors
« who are palletizing their consignments
« and taking into account the benefits
« the Administrations draw from this,
« the latter have introduced a certain
« number of tariff measures :

« — the tare of the pallets is not
« taken into account in determining the
« weight of the load to be charged, a
« weight limit being laid down;

« — attractive rates for client's pallets
« returned empty;

« — railway pallets are supplied free
« of charge or at a small hire charge.

« Some of these advantages are scaled
« down in such a way as to favour
« clients using pallets of a type similar
« to those adopted by the Railway Administrations themselves.

« Moreover upper and lower weight-limits have been laid down, on the
« one hand to take into account the
« power of the handling equipment and
« on the other, to obtain a sufficient
« load.

« 39. In order to reduce the systematic empty returns of client's pallets all
« Administrations have set up or are
« considering setting up pallet pools.

« This makes it essential for those
« concerned to use pallets absolutely
« identical with those belonging to the
« railway.

« The periods within which the compensation of supply and return must be effected are laid down by agreement. Certain Administrations accept the principle of immediate compensation which, whilst being favourable for clients, also has certain advantages for the railway at times.

« 40. In view of the development of international traffic, the general opinion of Administrations is that the exchange of palletized loads transported under this regime should be

« facilitated and even that pools should be set up, in order to reduce the traffic of empty pallets.

« This measure would also make it possible to extend the sphere of action and value of the national pools already set up and to facilitate frontier crossings (handling and customs operations). International pools, however, like pools with clients, imply standardisation of the types and dimensions of pallets used; agreements in this connection are in the course of preparation. »

QUESTION 6.

When changing over to electric and Diesel traction for passenger train services, research of the principles which may lead to a rational and efficient organisation of same.

For this purpose to :

- work out the social and economic needs and with this object in view, classify the passenger services according to the needs of the populations served, the distances, the volume of passenger traffic and its variations;
- fix, for each category, the traffic hours and advisable frequencies as well as the reasonable requirements of the public for comfort and speed;
- define the most suitable methods to draw up the timetables (including eventually regular interval train services) : choice of the type of train and rolling stock, fixing the runs.

Preliminary documents.

Report (Austria, Belgium and Colony, Bulgaria, Cambodia, Czechoslovakia, Denmark, Ethiopia, Finland, France and French Union, Western Germany, Greece, Hungary, Indonesia, Italy, Lebanon, Luxembourg, Netherlands, Poland, Portugal and overseas territories, Rumania, Siam, Spain, Switzerland, Syria, Turkey, Union of Soviet Socialist Republics, Viet-Nam and Yugoslavia), by R. CARLIER (See *Bulletin* for February 1958, p. 85).

Report (America [North and South], Australia, [Commonwealth of], Burma, Ceylon, Egypt, India, Iraq, Iran, Republic of Ireland, Japan, Malaysia, New Zealand, Norway, Pakistan, South Africa, Sudan, Sweden and the United Kingdom of Great Britain and Northern Ireland and dependent overseas territories), by G.F. FIENNES (See *Bulletin* for February 1958, p. 111).

Special report, by G.F. FIENNES (See *Bulletin* for September 1958, p. 1409.)

DISCUSSION BY THE SECTION.

Meeting of the 2nd October 1958.

PRESIDENT : R. SOULARD.

— The Meeting opened at 9.30 a.m.
The President (in French). — Ladies and Gentlemen, today we must begin our examination of Question 6. I welcome

Messrs. CARLIER and FIENNES to the Reporter's bench this morning. You will most certainly have made yourselves familiar with their remarkably competent

reports. I will now ask Mr. FIENNES, the Special Reporter, to introduce the discussions and make known the proposed summaries.

Mr. Fiennes, Special Reporter. — First, may Mr. CARLIER and I thank the Administrations for their great co-operation in answering a rather complicated questionnaire.

Secondly, may we say how greatly we have enjoyed interpreting the very detailed replies into a set of broad principles. Question 6 was specific on this point. « Research of the principles of Passenger Train Services ». And principles are what we have envolved.

Let no one think that because those principles are in very general terms, there is no room in them for debate. They are so drawn that there is ample scope for those who are in favour of or against the structure of the timetables of any country — or, indeed, all countries. And many countries lay emphasis on particular aspects of timetables. There is, we believe, no aspect of timetables which may not be raised under one of these twenty-one conclusions.

The first conclusion is an article of faith in passenger service as such. The emphasis here, as throughout, is on the social and economic needs of the population served. It is important to remember throughout our discussion that Question 6 is directed, not to the economic interest of the railways nor to their operating foibles, which are secondary.

Summary therefore reads :

1. A passenger service by rail is a great advantage for the population of every country and an absolute necessity for many. The

habit of travelling is increasing. The services must be adapted to the development of the public demand, whilst being kept within the reasonable standards of sound management.

Mr. Scherman, Swedish State Railways. — It is said here that the habit of travelling is increasing. In Sweden we are suffering from severe competition and the number of passengers is decreasing, in spite of the increase of travelling. Therefore, we have taken special steps to try to keep passengers to the railways, and I have the Chairman's permission to make a little report of a trial we have made on the Swedish State Railways. It is especially short distance travellers who have left the railways. In an endeavour to remedy this situation, it was decided that special arrangements should be put into effect as from the beginning of the summer timetable. In February this year, after having considered several different solutions, the following measures were decided upon : that special impersonal tickets should be issued, covering ten single journeys in either direction, at reduced fares, between certain towns. As the tickets are not personal to the holder, several persons can travel together on the same ticket. The reduction as compared with ordinary fares is about 40 % for single journeys and for return journeys about 20 %. In addition to this, two new trains were put into service, on the lines concerned in the trial, at hours suitable for people going to meetings, etc. The new services were extensively advertised. It is too early yet to draw a definite conclusion as we have only had three months' experience, but so far we are very satisfied with the results.

I would like to show you graphs, which

we have prepared. The first one covers the year 1955 and shows the number of tickets issued on our system. The tendency is quite clear. It is falling. On the same graph, we show the receipts. It is the same thing in all of our eight districts. Then we made a special graph for just those towns I have mentioned. Here we show details : January to April, May to August, September to December. It was worse than we expected. You can see how the number of tickets and also the receipts have fallen. For the last period, we were very surprised when we got the figures. Here we have these new figures and the number of ordinary return tickets had been maintained — we cannot understand why. So for the first time for many years, the number of return tickets is the same as before — the falling tendency has been arrested. Receipts for the first time have increased more than 10 %. In February this year, we have raised about 6 % more fares.

We have asked 100 firms for their views and almost all of them have said : « We have our own private cars, we do not care if the railways are improved or not ». We have asked travellers in the trains and they were very satisfied.

We should therefore like to alter the first paragraph of summary No. 1 in the following manner. Add after « the habit of travelling is increasing » :

« in some countries. However, the railways do not get any part of this increase. On the contrary, the number of passengers in these countries is decreasing. »

Then continue « The services must be adapted »... etc. Then put in :

« By agreement with other means of

transport, appropriate measures must be introduced to keep passengers on the railway. »

The President (in French). — I thank Mr. SCHERMAN for his interesting report. Has anyone any questions to ask? I want to know what the Reporters think?

Mr. Fiennes. — Mr. SCHERMAN has given us the benefit of his very interesting experience, but it is a fact, if delegates would care to refer to the reports published in the February *Bulletin*, that all the Administrations who have reported have had a large increase in their traffics since before the war and two only seem to have had decreases, if we compare the years 1950 and 1955, and those two Administrations are Sweden and India. So this diminution of traffic is not a common experience : in fact, it is rare. Now when that experience occurs — and it occurs in Great Britain and no doubt many other countries — on branch lines and secondary lines, and that diminution is obscured by increases in traffic on expresses on the main lines — when that occurs, Mr. SCHERMAN has given us an extremely vivid picture of what to do about it — modern equipment etc.; publicity; public relations — with all that the Reporters entirely agree. Still, we think that No. 1 of our summaries is probably still correct. The habit of travel, in fact, is increasing. It is even increasing in Mr. SCHERMAN's country, by private car and other means. We must advertise our rail services, as he has proposed, and in other ways endeavour to obtain a proper proportion of the traffic offering. If we wish to include reference to the experience of countries whose traffic is decreasing, may I suggest

that we put this into a subsidiary summary, so that it does not detract from our expression of faith in the first paragraph. It is a subsidiary summary which I would suggest we interpolate between the present Summaries Nos. 1 and 2. I would suggest that we might later agree with Mr. SCHERMAN the detailed wording, but we would have no objection to an simplification of that kind.

Mr. Scherman. — I have no objection and we can agree the text later. But I must say that I think several railways will meet the same difficulties as we have in Sweden. Passengers are turning from rail : they are adopting private cars.

The President (in French). — We will therefore retain Summary No. 1 with the text suggested by the Reporter. We will see whether it would be possible to insert an additional summary covering Mr. SCHERMAN's observation. But I would like to make a comment. Mention has only been made of the number of passengers, but there is another very important factor : i.e. the mileage travelled. We have found in France that the number of passengers has been steadily declining since the war, i.e. for twenty years, but it has also been noticed that the number of passengers-kilometres has considerably increased. So it is necessary to make a distinction between these two criteria.

Has anyone else anything to say?

M^{me} Bestcheva, *U.S.S.R. Railway Transport Ministry* (in Russian). — In the Soviet Union, there is a marked tendency towards increased travelling and the increase has been striking. For example, in the case of passenger transport by rail,

sea, river, road (common transport by buses) and air as a whole, 176.8 thousand million passengers-km were recorded in 1956, of which 142.4 thousand million passenger-km by rail, i.e. 80.6 %; by road (common transport), 26.4 thousand million passenger-km, i.e. 14.9 %; from 1940 to 1956, the increase of all passenger transport as a whole was 166 %, including 145 % for the railway and 774 % for the road. There has been a considerable development of air transport, the year 1956 shows a increase of « × 18 » with regard to 1940. The comparison of the cost of transport by air and by rail is interesting for long distances (in direct services, for distances of more than 2 000 km) : in the case of a Tu. 114 aircraft carrying 220 passengers, the cost is lower than by rail for long distances such as Moscow to Vladivostok, i.e. about 10 000 km; 45 such aircraft can replace 90 express trains. With high capacity aircraft, the cost of long distance transport is lower than by rail. With the putting into service of these large airliners, air transport is gradually replacing railway transport in the case of long distances.

The President (in French). — This information is most interesting, and I thank M^{me} BESTCHEVA. To return to the more limited subject we have to deal with, I would like to know if anyone else wishes to make any comment of a general nature.

Mr. Scherman. — I quite agree that we must distinguish between the number of passengers and the number of passengers-kilometres, but I am sorry to say that both are falling in Sweden. The average length of journeys is increasing. We have

the same experience as in Russia. Air transport is increasing in our country also.

The President (in French). — I thank Mr. SCHERMAN for the precision, and suggest we provisionally adopt Summary No. 1 with the text suggested by the Special Reporter. This text will be put before you again at our next meeting with an addition to cover the comments made (*Agreed*).

Mr. Fiennes. — *Summary No. 2 :*

2. The principles on which a rational and efficient passenger service is based can be summed up in the words : convenience, reliability, speed, comfort, and cheapness. Within the framework of these principles, the change to electric and diesel traction is a favourable opportunity of re-organising the services for the benefit of both the travelling public and the railway.

Mr. Du Plessis, South African Railways and Harbours. — On the question of cheapness, one would like to have seen more elaboration. In South Africa, for instance, we have our suburban traffic and our inter-urban traffic, our fares for which are very low indeed. In fact, we are running these services at a considerable loss. For our long-distance trains, the problem is, of course, competition by the motor car. We have, therefore, tried to get back that traffic by conveying a motor car accompanying two or more passengers very cheaply. I wonder if other delegates can tell me what they are doing in this connection, because we feel when people today visit holiday resorts, they want their motor car there, and that is probably an aspect which could receive further consideration. There is another aspect where we feel it may be possible

to recover traffic to rail. If one person takes a motor car, he can often do it more cheaply by rail. We feel the possibility should be explored of quoting lower fares for families. I appreciate the difficulties of control. But I was wondering whether the point had been explored on other railways.

Mr. Fiennes. — I must ask the President, so far as the text is concerned, to rule Mr. DU PLESSIS out of order. He would not know this, but we discussed, at great length, whether to introduce this element of competition into our questionnaire, and the ruling of the Permanent Commission at that time was, that the question was directed to the social and economic needs of the population, and if we entered into the competitive aspect, we should be floundering into a morass from which we should not emerge within three days. I would prefer that the text should not be altered — and, in fact, Mr. DU PLESSIS has not asked for alteration of the text — in this respect.

Now, as to the general question taken as an observation, we have some experience in Great Britain of cars accompanying passengers. In Great Britain, we have instituted, between London and Scotland, on two routes, and between Sheffield and the West Country and Manchester and the South country, motor car trains which convey passengers and for them sleeping cars and light refreshments. We have tailor-made the fares so that they do take account of the cost of going by car with a night's lodging on the way, compared with the fare we charge by rail. We are getting extremely good use of these trains. Between King's Cross and Scotland we could run twice as many as

we are running. We run two daily in April and September, and three in July and August. It is largely prestige service. We make ends meet. We do not make large profits. We are doing fairly well, and we do gain great prestige from the public at large and a great deal of publicity from the service working so well.

The President (in French). — Are you satisfied with this information, Mr. DU PLESSIS?

Mr. Du Plessis. — I thank you and Mr. FIENNES.

Mr. Scherman. — We have also special arrangements for taking private cars from the North to the South of Sweden and vice versa. We have not had much success. Perhaps the fares are too high. We have also special arrangements for family travel. I am prepared to give details to interested delegates. But I think this question concerning competition is of very great importance for all railway administrations and it is perhaps best to make a special report on how to meet competition at a future meeting of I.R.C.A.

The President (in French). — The railroad question would in itself be sufficient to fill up numerous meetings. We must not get side-tracked in this way; we are going outside the limited subjected set us.

Mr. Cirillo, Italian State Railways (in French). — On the one hand, the wording of Question 6 mentions « social and economic requirements »; on the other hand, the proposed Summary No. 2 states : « The principles on which a

rational and efficient passenger service is based can be summed up in the words : convenience, reliability, speed, comfort and economy. » Now, it happens that the clientele has changed a good deal during the last few years. We are carrying more passengers who are less well off. What are we thinking of doing for these poorer clients? The type of clientele is not mentioned in the Summary and, consequently, the idea of social measures does not seem to be included. As far as we are concerned in the case of the electric railcar services, we are extending the second class accommodation in the fast trains as much as possible.

Mr. Carlier, Belgian National Railways and Reporter (in French). — Quite a number of railways are looking for a new clientele for the railway. In fact, the clientele is changing; we are having to deal with a public preponderantly second class. But the replies received do not enable us to say whether this is the general experience.

The President (in French). — Here again there is no general rule. The situation differs from country to country; trains having first class accommodation may be profitable; in which case there is no reason to allow second class passengers on them. Second class travel must be introduced wherever experience has proved the need for it. The public must be satisfied without taking too many risks.

This interesting exchange of opinions having in no wise affected the proposed text for Summary No. 2, it appears that this can be adopted without modification. (*Agreed*).

Mr. Fiennes. — *Summary No. 3 :*

3. The capacity to work practically uninterruptedly, the relative rareness of breakdowns in service, the great accuracy in running, the high capacity for acceleration and sustained speed, the ease with which multiple unit rakes can be made up, and their great cleanliness are the main advantages of the new methods of traction which allow of the greater application of the first principles above than is the case with steam traction.

Mr. Wyrzykowski, Polish Railways and Vice-President (in French). — Modern traction has other advantages which are not mentioned. Amongst these, mention must be made of the greater facility in making mixed passenger and freight locomotives, the higher thermic efficiency, and more flexible use of the installations. I suggest adding a few words to the Summary to stress these advantages.

The President (in French). — Is the Meeting agreeable to mentioning the higher thermic efficiency?

Mr. Fiennes. — Agreed.

Mr. Scherman. — I would like to put a question. Is it right, in the fourth line from the end, to say « new methods of traction », when the methods are not new. We have had electrified lines for more than 25 years. I would ask if we ought not to change the wording to omit the word « new » and simply say « methods of traction, diesel and electric ».

The President (in French). — With the modifications asked for, Summary No. 3 will now read as follows :

« 3. The capacity to work practically uninterruptedly, the relative rareness of breakdowns in service, the great accuracy

in running, the high capacity for acceleration and sustained speed, the ease with which multiple unit rakes can be made up, and their great cleanliness, higher thermic output, greater elasticity in the use of locomotives are the main advantages of the methods of Diesel and electric traction which allow of the greater application of the first principles above than is the case with steam traction. »

Are we agreed about this? (*Agreed*). Summary No. 3 is therefore adopted.

Mr. Fiennes. — *Summary No. 4 :*

4. As a journey is to a large extent a loss of time, one of the main objects of a train service is to minimise this loss, primarily by a judicious selection of the departure and arrival times, and by increasing the number of trains and the average speed.

Mr. Scherman. — We agree with the principles here, but we have been forced to decrease the number of train kilometres. There was a reduction of 5 % in 1957 and 5 % again this year. We should therefore like to make the end of this paragraph read in the following way : « ... and by increase of the average speed and the number of trains » and then add :

« in spite of this, however, some railways have been compelled to reduce the number of trains owing to decrease of passengers ». Perhaps that could be included in the additional paragraph we decided to have when discussing Summary No. 1.

Mr. Fiennes. — I think, Mr. President, we must be careful not to diminish the force of the principles by including exceptions too frequently. If we do try to do this, the experience of any Administration in a different condition from the

majority would go in as a kind of dissenting judgment on the principles and it would weaken the principles very considerably. I would ask, Mr. SCHERMAN in this case, not to press this amendment. »

Mr. Scherman. — Perhaps we could have something like this in the additional paragraph to Summary No. 1.

Mr. Discry, Belgian National Railways (in French). — What about altering the end and saying : «... by increasing the speed and possibly the number of services »

Mr. De Bruin, Netherlands Railways (in French). — I do not agree. An increase in the number of services is one of the strongest weapons of the railway. Nor do I agree with Mr. SCHERMAN. We cannot add exceptional cases to a summary dealing with the main objectives. If the objective has not been reached in certain countries, it still remains an objective and cannot be restricted.

Mr. Weckmann, Deutsche Bundesbahn (in French). — Further on, mention is made of the frequency of the services. If the principles are to be stressed in Summary No. 4, the text should be retained as it is.

Mr. Baudier, French West African Railways (in French). — In Summary No. 1, it is stated that the improvement of train services should be pursued within the limits dictated by a rational management. However, in Summary No. 4, this idea of profitability is not taken up and it should be mentioned; the increase in frequency being only decided if a

positive balance-sheet may result from this measure.

The President (in French). — There may however be exceptions; in certain particular cases, sacrifices may be finally indicated.

Mr. Langevin, Paris Transport Board (in French). — In the case of urban and suburban transport, the question of profitability is nearly always in direct opposition with the essential idea of a public service, the deficit being met by the communities concerned from the social point of view.

Mr. De Bruin (in French). — It appears that we may retain Summary No. 4 as proposed. The basic principle — the limits of a rational organisation — is given in Summary No. 1. The other Summaries should take this basic principle as agreed.

Mr. Fiennes. — The Reporters think, Mr. PRESIDENT, that the discussion has answered itself and that the text should stand. We certainly, in practice, give weight to railway economics of any service, as well as to the social and economic needs of the population. I think Mr. DE BRUIN is quite right when he says that in Summary No. 1, the words « whilst being kept within the reasonable standards of sound management » govern the whole of the Summaries and it is not necessary to repeat them, or words to the same effect, every time. »

Mr. Scherman. — I would like to answer the question raised by the Delegate from Holland. We have tried to raise the number of passenger train-miles. They

were increased in 1936. But we have had to change our ideas, and I think we ought to put in something here about sound management. We might say something to the effect that we ought to raise the number of trains but that at the same time we must think of sound management.

The President (in French). — As far as I am concerned, I found Mr. DE BRUIN's explanations very clear. Summary No. 1 sets out the considerations of a general nature which apply to all that follows : we must keep within the reasonable limits of a rational organisation. I suggest we retain the text proposed.

Mr. Scherman. — Agreed.

Mr. Discry (in French). — I think the text should correspond to the opinion of the majority of the Administrations. Every time we try to introduce variations, we undermine the general idea. Perhaps, Mr. SCHERMAN would accept the text as worded as representing the general opinion of the Administrations and in an additional summary come to an agreement with the Reporters regarding the mention of the particular wishes of certain Railways.

The President (in French). — We will see later on. For my part, I hope to avoid such terminal appendices. So that we can get on, shall we adopt Summary No. 4 if you agree, in its original form? (*Agreed*).

Mr. Fiennes. — *Summary No. 5 :*

5. The selection of the departure and arrival times of the trains must give priority to the following two objectives :

- reduce the impact of the journey on ordinary working hours, and consequently encourage night-time, evening or half-day travel;
- avoid train arrivals and departures between midnight and 6 a.m.

The President (in French). — No comments?

— *Adopted without discussion.*

Mr. Fiennes. — *Summary No. 6 :*

6. Consequently in the case of journeys lasting more than six hours, considering in turn those routes over which the traffic justifies one, two, three, four ... services a day, the practice followed by the railways shows that it is desirable for the time-tables to include in the order given the following trains :

- a night train leaving between 7 p.m. and midnight;
- a day train leaving early in the morning (in the case of journeys taking less than sixteen hours);
- an afternoon train (in the case of journeys taking less than twelve hours);
- one special high speed train at the time most convenient for those using it;
- other trains at hours dictated more particularly by the special conditions on the line.

Mr. Weckmann (in French). — In the last paragraph it says : « ... dictated more particularly by the special conditions on the line. » These are technical conditions.

Mr. Carlier (in French). — It might be, for example, as intended by the Reporters, a ferry-boat service or transatlantic service.

Mr. Weckmann (in French). — I do not know if the expression : « special conditions » is well chosen.

Mr. Arkle, *British Railways*. — I suggest : « ... special characteristics of the traffic on the line. »

The President (in French). — Agreed. (*Signs of assent*). Summary No. 6 is therefore *adopted* in the following form :

« 6. Consequently in the case of journeys lasting more than six hours, considering in turn those routes over which the traffic justifies one, two, three, four... services a day, the practice followed by the railways shows that it is desirable for the timetables to include in the order given the following trains :

« — a night train leaving between 7 p.m. and midnight;

« — a day train leaving early in the morning (in the case of journeys taking less than sixteen hours);

« — an afternoon train (in the case of journeys taking less than twelve hours);

« — one special high speed train at the time most convenient for those using it;

« — other trains at hours dictated more particularly by the special characteristics of the traffic on the line. »

Mr. Fiennes. — *Summary No. 7 :*

7. If the journey takes less than six hours :

— the night train will be replaced by an evening train;

— the day trains will leave at hours so chosen that the whole journey can be made in half a day or less, including a meal.

Mr. Cardell, *Swedish State Railways*. — If the journey takes less than six hours, it could only be made in half a day or less; the proposed text does not seem at all clear to me.

Mr. Fiennes. — The Swedish delegate is right. This needs to be made more precise : « ... the whole journey can be made in half a *working* day or less. »

The President (in French). — The amended Summary, in order to take the comment made into account, will therefore read as follows :

« 7. If the journey takes less than six hours :

« — the night train will be replaced by an evening train;

« — the day trains will leave at hours so chosen that the whole journey can be made in half a working day or less, including a meal. »

— *Adopted.*

Mr. Fiennes. — *Summary No. 8 :*

8. The choice between a train service organised in groups and continuous services spaced out over the day depends upon many factors, in particular the length of the journey and the number of travellers; as the length of the journey decreases and the number of passengers increases, usually the Group services give way to Continuous services, and in the end to Interval services in extreme cases. This evolution is facilitated by the changeover in traction.

M^{me} Bestcheva (in Russian). — When drawing up our timetables, we take into account the following principles :

1) On single track lines, where passenger traffic is insignificant, we usually make provision for 3 to 8 pairs of trains per 24 hours, at spaced intervals.

2) On double track lines, with heavy passenger traffic, the tendency is to organise groups of trains running at the same speed, 2 trains per group, in order to avoid to have to decrease the flow of traffic on certain lines and directions.

In all cases, we take into account the demand of the clientele. In the case of journeys lasting 6 to 8 hours, we endeavour to arrange the departure in the evening so as to arrive at destination in the big industrial centres and other towns early in the morning before the start of the working day.

I want the following addition to be made to Summary No. 8. Immediately after : « This evolution is facilitated by a change-over in traction. » I would like to say : « ... and by the improvement of the railway equipment, particularly the creation of new main lines and the installation of the most modern techniques, such as centralised control of the points and signalling. »

The President (in French). — We will make this addition to Summary No. 8 which will now read :

« 8. The choice between a train service organised in groups and continuous services spaced out over the day depends upon many factors, in particular the length of the journey and the number of travellers; as the length of the journey decreases and the number of passengers increases, usually the Group services give way to Continuous services and in the end to Interval services in extreme cases. This evolution is facilitated by changeover in traction, and by the improvement of the railway equipment, particularly by the installation of new tracks, by the installation of the most modern techniques, such as centralisation of the control of points and the amalgamation of signal boxes.

— *Adopted.*

Mr. Fiennes. — *Summary No. 9 :*

9. The Group services are suitable for night services and for trains making important connections (with boat services in particular).

The President (in French). — Any comments?

— *Adopted without discussion.*

Mr. Fiennes. — *Summary No. 10 :*

10. An Interval service loses much of its value if the time between two successive trains is more than two hours.

Mr. Wyrzykowski (in French). — I would like this text to be modified as follows : « A spaced service loses much of its attraction for passengers if the interval... »

Mr. Nogués, *Spanish National Railways* (in French). — This is a negative summary. We should have some positive statement. This would appear to be possible if we refer to the text of the special report, which makes a more definite pronouncement in favour of spaced timetables. In effect at the end of point 12 and in points 13 and 14 of the special report it is stated :

« ... in these cases the addition to the timetables of individual trains is usually a costly and often an inconvenient solution. A stage is reached when a general revision of the timetable as a continuous or interval service better satisfies the public needs and produces great economies in rolling stock and train crews.

« 13. The advantages of the ultimate interval services are that they are easy for the traveller to memorise — provided that the interval is two hours or less :

they promote higher frequencies at a low cost : they enhance prestige by their appearance of good order and good planning : they conduce to punctuality by their standard repetition of a pattern.

« 14. In brief, the evidence is that the growth of travel has not been matched by greater frequency. A forward policy in this respect should warrant in some cases a redesign of timetables as continuous or interval services. »

The President (in French). — We cannot introduce such a complete statement into the Summaries. Would it not be possible to give satisfaction by adapting the text proposed ?

Mr. Weckmann (in French). — Could we not say : « ... loses many of its advantages for passengers... »

The President (in French). — Summary No. 10 will therefore read :

« 10. An Interval service loses many of its advantages for the passenger if the time between two successive trains is more than 2 hours. »

— Does every one agree? (*Agreed*).

Mr. Fiennes (in French). — *Summary No. 11 :*

11. The structure of intermediate stops depends :

- on the amount of traffic between the two terminal stations of the run;
- on the traffic between the intermediate stations and the terminal stations;
- on the traffic between the intermediate stations themselves.

Mr. Weckmann (in French). — It says « the demand »; is it not rather « the traffic » ?

Mr. Wyrzykowski (in French). — The programme of intermediate stops can also be influenced by the capacity of the trains, the number of seats available for passengers. I suggest we modify the text as follows : « The programme of intermediate stops depends upon the volume of traffic between : the two terminal stations of the run, the intermediate stations and the terminal stations, and the demand between the intermediate stations themselves. It also depends upon the capacity of the trains and the number of seats available. »

Mr. Carlier (in French). — It is my impression that the addition about the capacity of the trains is a repetition of the following summary.

Mr. Discry (in French). — I am of the same opinion as Mr. CARLIER. However, some of Mr. WYRZYKOWSKI's suggestion should be retained : the main idea is formulated in a better fashion : at the beginning of summary No. 11, we can say once for all : the volume of traffic »; in what follows the words « demand » or « traffic » can be left out every time.

Mr. Fiennes. — With the simplification I am entirely in agreement. We have not yet resolved the point raised by Mr. WYRZYKOWSKI, who referred to the amount of possible traffic.

Mr. Wyrzykowski (in French). — I think that the modification I suggested for Summary No. 11 makes Summary No. 12 clearer.

Mr. Tribelhorn, *Swiss Federal Railways*. (in French). — I do not think so. The

traffic is the first factor and Summary No. 12 deals with the demand.

Mr. Carlier (in French). — Unless we make a distinction between the traffic recorded and the possible traffic, I would hesitate to use the word « demand ». We might say : « The programme of intermediate stops depends upon the possible volume of traffic... »

Mr. Watkins, *British Transport Commission*. — I do not know whether this is the appropriate paragraph to raise it, but in connection with timetabling, I cannot find any real reference to getting the best line capacity in catering for freight and passenger traffic. The freight traffic brings in the best revenue, and in making up a timetable, one must leave proper paths for dealing with this traffic.

Mr. Weckmann (in French). — Mr. CARLIER mentioned the possible volume. We base our stops on the existing traffic. I suggest we say : « depends on the existing volume... »

Mr. Discry (in French). — We might say : « depends on the demands of the clientele. »

Mr. Fiennes. — Returning to Mr. WATKINS' point, there were several Administrations who referred in their report to the intervals between passenger and freight trains. Mr. CARLIER and I resolutely resisted the temptation to introduce this question into our report because of the pro forma to the question which, as I said at the beginning, was to 'work out the social and economic needs'

of the population for passenger service. Although we wished to take up the points made by several administrations, as it was not within the terms of the question it seemed to us difficult to do so.

The President (in French). — A passenger graph is not drawn out without taking into account the freight traffic which is very interesting. But doubtless, we all agree that passengers and freight should not be mixed, which would take us much too far.

Mr. Langevin (in French). — There is one idea which has not been mentioned : that is the overloading of the trains. In Japan, there is overloads of as much as 200 %. But this is a special case, and I do not think it need be mentioned.

The President (in French). — I think I am interpreting the wishes of the majority of the Delegates in supporting the Reporters in their desire not to introduce any mention of freight.

Mr. Scherman. — When we are constructing timetables, we must take great care to get good connections between trains. We must put in stops for important trains at small places where we have connecting lines to other towns. Therefore, I would propose that we add at the end of the paragraph « Due regard must also be taken of traffic to connecting lines ».

Mr. Fiennes. — Agreed.

Mr. Carlier (in French). — We might say more simply : « ... taking into account the connections to be assured... »

The President (in French). — If we take the modifications which have been agreed on into account, we can word Summary No. 11 as follows :

« 11. The structure of intermediate stops depends on the needs of the clientele between :

« — the two terminal stations of the run;

« — the intermediate stations and the terminal stations;

« — the intermediate stations themselves;

with due regard to the connections to be made. »

Does everyone agree that this text should be adopted? (*Agreed*). Summary No. 11 is therefore *adopted* with this wording.

Mr. Fiennes. — *Summary No. 12 :*

12. If there is sufficient traffic, it is right to carry the greatest possible number of passengers between the terminals by non-stop trains.

Otherwise the need to provide a reasonable number of trains is the prevailing factor and intermediate stops will ensure that sufficient numbers use the trains.

The changeover to electric and diesel traction makes additional stops that one would have hesitated to make with steam traction more acceptable.

Mr. Scherman. — I would like to put the question whether it is right to make additional stops. The first aim should be to shorten the time of a journey and not to lengthen it by making additional stops. I think we ought to add something to that effect.

The President (in French). — In this Summary, mention is made of intermediate

stops. It is seen that with diesel or electric traction, supplementary stops are accepted much more readily than with steam traction. The scope of the Summary is much more general than Mr. SCHERMAN seems to think : it is not a recommendation to create additional stops systematically, but a statement that where one hesitate to do so with steam traction, it is an easier matter with diesel or electric traction.

Mr. Wyrzykowski (in French). — I would agree with the statement : « If there is sufficient traffic » in so far as by this is meant the capacity of the train.

Mr. Crem, *Belgian National Railways* (in French). — The first idea, namely that it is advantageous to transport the greatest possible number of passengers by through trains, should not be subordinated to any condition. It is only in the second paragraph that one might say : « When there is not sufficient traffic, the need to provide a reasonable number of trains... »

Mr. Fiennes. — Mr. CREM is right. « If there is sufficient traffic » does not add anything to the paragraph and may be omitted. It does not, I think, meet Mr. WYRZYKOWSKI's point about capacity of the trains, but the framing of the question is such that capacity of the trains being an operating matter by assumption, does not really arise in this question. We are dealing with the social and economic needs of the population.

Mr. Wyrzykowski. — My point of view differs from that of the Special Reporter on this subject.

The President (in French). — In Summary No. 1, we said : « The service must be adapted to the development of public demand, whilst being kept within the reasonable standards of sound management. » This fundamental idea includes the correct use of the trains. Moreover, it has been decided that the summaries shall not be repetitive.

Mr. Discry (in French). — The third paragraph might be simplified. It is implied that a changeover in traction makes additional stops more acceptable because less time is lost. But this is not actually stated. We might say : « moreover reduces the time needed for creating local stops. »

The President (in French). — After the different modifications suggested, the text of Summary No. 12 will be as follows :

« 12. If there is sufficient traffic, it is right to carry the greatest possible number of passengers between the terminals by non-stop trains.

« If there is not sufficient traffic to justify such trains, the need to provide a reasonable number of trains is the prevailing factor and intermediate stops will ensure that sufficient numbers use the trains.

« The changeover to electric and Diesel traction, by reducing loss of time due to stops, makes additional stops that one would have hesitated to make with steam traction more acceptable. »

Are we agreed that Summary No. 12 be adopted in this form? No comments? It is therefore *adopted*.

Mr. Fiennes. — *Summary No. 13 :*

13. As stops during the night disturb the passengers, the number of stops made by night trains should be reduced to the minimum.

Mr. Johannesson, Swedish State Railways. — I think there is another problem that is not mentioned in this paragraph. If extra carriages have to be put on during the night, that disturbs the passengers more than the stops. I think this is a great problem. You must provide passengers with direct sleepers. At the big intermediate stations you must add sleepers. The principle, I think, still stands, that the stops by night trains should be reduced to the minimum. If trains have to stop to pick up sleeping cars from the branches, or set down sleeping cars for the branches, that is unavoidable, and the stops may be said to have been reduced to a minimum. This had to be pointed out, but I do not ask any alteration of the text.

The President (in French). — Can we consider Summary No. 13 as adopted? (*Agreed*). We will terminate our work for today at this point and continue the discussions on Question 6 at the meeting on Monday next October 6th.

— The meeting adjourned at 12.30.

Meeting of the 6th October 1958.

PRESIDENT : R. SOULARD.

— The meeting began at 9.30 a.m.

The President (in French). — Before we continue our examination of Question 6, I would like to ask all those Delegates who wish to make any modifications or additions to the text proposed by the Reporter, to be good enough to prepare the new text clearly and give it to the Reporter, so as to avoid loss of time and clarify the discussions.

Mr. Fiennes. — *Summary No. 14 :*

14. Punctuality is of the greatest importance. The timetables should not promise more than the equipment and staff can reliably perform.

Mr. Harbour, London Transport Executive. — Without wishing, in any way, to diminish the importance of punctuality, I would propose that in Summary No. 14, there should be reference to « reliability ». We are setting out here a list of the things which should condition the devising of new electric and diesel train services, and I think reliability is of fundamental importance and punctuality is, of course, part of reliability. I would therefore like to propose an amendment to this summary, that the first sentence should read « Reliability and punctuality are of the greatest importance ». It is a simple amendment, but it covers a fundamental requirement which was recognised in paragraph 14 of the main report.

Mr. Fiennes. — The Reporters agree.

Mr. Wyrzykowski (in French). — I suggest adding after the word « equipment » the words « methods of working ».

Mr. Discry (in French). — I think we are going astray trying to include too many details. The timetable should not promise more than can be achieved.

Mr. Fiennes. — I think that weakens this text very considerably. I wanted to get two things into this phrase : first, that the timetable is a promise and, second, that the equipment and staff must be able to carry out that promise. I wanted to bring this out very strongly. The wording now proposed is much weaker.

The President. — If we say :

« The timetables should not promise more than can be reliably performed. » This would cover all the methods at our disposal.

Mr. Fiennes. — Agreed.

The President (in French). — Summary No. 14 will therefore be worded as follows :

« 14. Reliability and punctuality are of the greatest importance. The timetables should not promise more than can be reliably performed.

— *Adopted.*

Mr. Fiennes. — *Summary No. 15 :*

15. Reduction in the journey time is an important factor in increasing traffic, especially over long distances, and in the case of services by day.

The changeover in methods of traction produces undoubted advantages in this connection, even if the maximum speed allowed over the lines in question is not increased.

Such an increase in the maximum speed should only be made after an economic study has been made to ascertain the costs it will involve, the savings it will produce and the increase in receipts which can be expected from it.

Several Administrations report that the great increases in the average speed obtained in this way have been in general profitable.

Mr. Arkle. — May I suggest that in addition to saying reduction in journey time is an important factor in increasing traffic, we should say «increasing and maintaining traffic », because in these days of developing air lines, it is an important thing to cut journey time and we have found that it has a great effect in keeping traffic. I therefore suggest insertion of the words « and maintaining » in the second line.

Mr. Langevin (in French). — Competition from aircraft has just been mentioned. The airways compete over long distances. But as soon as suburban traffic is included in our discussions, for short runs, the competition of the motor must be taken into account. The cost of underground junctions, for example, are only justified by the desire to reduce the journey times in the suburban services and this is even more important than in the case of long distance lines.

I would like the end of the first paragraph to be suppressed where it says :

« especially over long distances and in the case of services by day. » But if the Meeting is of the contrary opinion I will not insist.

The President (in French). — The first part of the Summary is of a general nature. « Reduction of the journey time is an important factor in increasing traffic » and the precision : « especially over long distances... » does not in any way exclude the principle from also applying to suburban transport.

Mr. Tribelhorn (in French). — I am of the opinion that international services should be considered first of all. But the suburban traffic must also be taken into account.

The President (in French). — This is mentioned at the end of Summary No. 21.

Mr. Weckmann (in French). — In Summary No. 15, mention is made of increasing the speed; it is stated that such an increase should only be made after an economic study bearing upon all the costs it involves, *the economies it will give rise to and the increase in receipts which can be expected.* I suggest saying rather : « and the resultant advantages. » It is not always the increased receipts that have to be considered; sometimes the speed has to be increased in order to retain the traffic.

Mr. Fiennes. — The Reporters agree; the text suggested by Mr. WECKMANN is better.

Mr. Langevin (in French). — For my part, I am not asking for any modification.

Mr. Lance, Secretary. — At the end of the last paragraph, it says in the French text : « ... ainsi réalisées ont été *largement* bénéficiaires ». In the English text, it says : « ... have been in general profitable. »

Mr. Carlier (in French). The French text should be : « ont été en général bénéficiaires ».

The President (in French). — The text of Summary No. 15 modified as suggested becomes :

« 15. Reduction in the journey time is an important factor in increasing and maintaining traffic, especially over long distances, and in the case of services by day.

« The changeover in methods of traction produces undoubted advantages in this connection, even if the maximum speed allowed over the lines in question is not increased.

« Such an increase in the maximum speed should only be made after an economic study has been made to ascertain the costs it will involve and the advantages expected therefrom.

« Several Administrations report that the great increases in the average speed obtained in this way have been in general profitable. »

— *Adopted.*

Mr. Fiennes. — *Summary No. 16 :*

16. The use of passenger trains for other traffics, in particular to speed up some of the parcels traffic, is only acceptable to the extent that they do not interfere with punctuality and the structure of the passenger timetables.

Mr. Scherman. — In this paragraph we say — « to the extent that we do not interfere with punctuality and the structure of the passenger timetables ». When we are constructing the timetables in Sweden, we must have sufficient time at intermediate stations for goods and mail, for our passenger trains and also, on some occasions, for our express trains. I think it is the same in other countries and therefore I would suggest that we alter the end of this paragraph — to the extent that they do not interfere with punctuality. The passenger timetables, however, must in some cases be constructed with regard to the time required for handling goods and mail.

Mr. Carlier (in French). — Worded in this way, the text means the contrary to what the Reporters intended.

Mr. Scherman. — It seems that the conditions in Sweden are contrary to those in other countries. For us, it is necessary to have sufficient time for this handling.

The President (in French). — What Mr. SCHERMAN has just said relates to Summary No. 14, in which we stated that the demand had to be taken into account and we should not promise more than we can perform. This is another idea which the Reporters wished to express in Summary No. 16; when organising a passenger service one must not be committed to carrying freight which might compromise the regular running of the trains. In order to have an acceptable timetable, a lot of time must not be spent handling parcels at the stations.

Mr. Discry. — I am of the same opinion as the PRESIDENT, and am in favour of retaining Summary No. 16 as proposed by the Reporters. However, I would like to ask them if it would not be better — it is merely a question of form — to say instead of « forwarding certain parcels » to say « forwarding certain goods ». In this way, full loads are also included.

Mr. Fiennes. — Goods is a more general term and is preferable. Having substituted « goods » for « parcels » traffic, Mr. ARKLE has drawn attention to the fact that parcels traffic is singular in the third line and « they » in the fourth line is plural. Therefore, it was agreed to replace « they » by « it. »

Mr. Scherman. — In order to get reliability and punctuality, it is necessary for us to construct our timetables to provide the time we need for handling parcels and mail. This summary, therefore, is not correct for the circumstances in Sweden, but if our position is exceptional, I will not insist upon altering the text.

The President (in French). — I do not think this applies only to Sweden. In every country, we are trying to make a compromise between purely passenger trains and mixed passenger and freight trains. But there are no general directives which can be included in the Summaries, which cover absolutely every case. I think this discussion can be considered closed, and Summary No. 16 can be adopted taking into account the modification suggested by Mr. DISCRY, i.e. in the following form :

« 16. The use of passenger trains for

other traffics, in particular to speed up some of the goods traffic, is only acceptable to the extent that it does not interfere with punctuality and the structure of the passenger timetables. »

— *Adopted.*

Mr. Fiennes. — *Summary No. 17 :*

17. Service stops must be cut down as much as possible, in particular :

- on international services by making it the general practice to carry out customs and police checks during the run;
- on services over lines with different systems of electrification, by using locomotives capable of running on different frequencies and voltages.

Mr. Wyrzykowski. — I would like to add at the end of the second paragraph a phrase in parenthesis : « (checks made from midnight to 6 a.m.). »

Mr. Weckmann (in French). — What are the reasons for this restriction?

Mr. Wyrzykowski (in French). — It is a point which must be taken into account in drawing up the timetables in order to make sure that customs and police controls will not take place at night. Such controls must take place between 6 a.m. and midnight.

Mr. Fiennes. — The idea is, I suppose, to preserve uninterrupted rest during the night. I think Mr. WYRZYKOWSKI has a point there. It is a matter of balance of advantage of uninterrupted rest compared with speed, and we have said earlier in Summary No. 13 that we want rest preserved. It is a bit illogical to say this and to disturb passengers with police and other checks. I should like, if possible,

to hear the views of other delegates on this point. »

Mr. Discry (in French). — I quite understand Mr. WYRZYKOWSKI's point. But I must confess that when drawing up the timetable for a service between Brussels and Milan, for example, the work would be quite impossible if one had to respect such a clause as that he suggests adding.

The President (in French). — Some frontiers are crossed outside the hours stipulated by the Polish Delegate. I am wondering if there is not a misunderstanding. It is not a question of deciding whether or not there shall be any checks, but of reducing the time of stops recognised as inevitable.

Mr. Wyrzykowski (in French). — I suggest my idea be included at the end of Summary No. 5, by adding « the establishment of the timetables must be so arranged that customs and police checks take place between 6 a.m. and midnight. »

Mr. Weckmann (in French). — Maintaining the text suggested by the Special Reporter for summary No. 17 does not stop an Administration to avoid checks between midnight and six in the morning. As far as the Deutsche Bundesbahn is concerned, this would be impossible. On the contrary, checks have to be made during the night to speed up the train services. There is the case of the famous Orient-Express on which different Administrations have to arrange for checks during the run. To conclude, I suggest

we retain the text proposed by the Reporter which does not exclude Mr. WYRZYKOWSKI's request.

The President (in French). — That is a very judicious comment. In practice, there are many cases in which Mr. WYRZYKOWSKI's suggestion would be impracticable.

Mr. Wyrzykowski (in French). — Agreed. I will not insist.

The President (in French). — Summary No. 17 will therefore be adopted without any modification? (*Agreed*).

Mr. Fiennes. — *Summary No. 18 :*

18. The efforts of the railways to improve the standard of comfort offered as a rule should be directed to the following points :

- riding qualities, especially in the case of railcars;
- heating;
- sound insulation;
- forced ventilation and air conditioning;
- lighting;
- design and arrangement of the seats;
- extension of sleeper accommodation on night trains;
- restaurant services (restaurant cars, buffet-cars and trolley services).

Mr. Cirillo (in French). — Instead of the design of seats, it seems to me that it would be better to mention the interior arrangement of the coaches, which includes the seats and other accessories. This mention should be made before the paragraph « heating » and come after « riding qualities ». I am of the opinion that steps taken to improve the comfort must consider the interior arrangements. On the other hand, air conditioning is a

rather special question; it could be recommended as far as practicable, but it is not one of the main conditions which must always be realised.

The President (in French). — Any other comments before I call upon the Reporter?

Mr. Baudier (in French). — Good riding quality is dependent not only of the rolling stock but also of the state of the track. A satisfactory track is a primordial condition for the comfort of passengers, should not this idea be included in the Summary?

The President (in French). — The condition of the track must be taken into account. Comfort could not be improved if a poor quality permanent way was retained. The Administrations must make extra efforts to improve the condition of the track.

Mr. Discry (in French). — I wanted to ask why after «riding qualities» it says «especially for railcars». Such a precision might bother readers. They might think that if the railcars ride well, there is nothing to improve, but the coaches may not all be riding well.

Mr. Weckmann (in French). — It does not seem necessary to me. On the other hand, I think we might mention increasing the number of sleeping car berths. Both sleepers and couchettes should be increased.

Mr. Langevin (in French). — I would like to point out that we have made very great efforts as far as riding qualities are concerned. We have put into service

rolling stock with pneumatic tyres which improve the riding quality and the sound insulation, together with an increase in the average speed of as much as 16 %. As far as paragraph 6 of this Summary No. 18 is concerned, we mentioned the installation of folding seats which considerably add to the comfort during rush hours. But this could be included under Summary No. 21.

Mr. Crem (in French). — Since it is a question of the comfort, may I point out that no mention has been made of cleaning the stock during the run. No mention has been made of the dirty condition of coaches especially on long runs. And we often get complaints about this. Could this not be mentioned in the Summary?

Mr. Kristensen, *Danish State Railways*. — If a coach has unexpectedly to be replaced by another type of coach, this means trouble about the reserved seats and trouble for the passengers, so steps should be taken to make sure that it will not be necessary to change the type of coach normally provided.

Mr. Fiennes. — Referring to Mr. CIRILLO's remarks, I would prefer to separate the two ideas. I think we want to preserve the idea of design of the seats. A great deal of research is going on at the moment into design of seats to reduce fatigue. This is a point we want to bring out in the summaries.

On Mr. CIRILLO's other point, that we should have a phrase about the interior arrangement of the coach as a whole, Mr. CARLIER and I think this is a good one and should be put in as separate

remarks : design of the seats; and the general internal arrangement of the coaches — or possibly under two headings :

— design of the seats;

— internal arrangement of the coaches.

Mr. Cirillo (in French). — Agreed.

Mr. Fiennes. — On the point about riding qualities, the phrase is explained very fully in the Special Report. **Mr. CARLIER** and I have no objection to suppressing the words « especially in the case of railcars », if delegates so wish.

Mr. Crem (in French). — In my opinion, it is the riding qualities of the railcars that have given us the most trouble. It is easier to have a smooth riding coach than a good railcar. But I will not insist on mention being made of the riding of railcars.

Mr. Davis, Nigerian Railway Corporation. — In the wording « extension of sleeper accommodation », I would suggest an addition « and other facilities » on night trains. Particularly, in the case of journeys over 24 hours, I think it is desirable to have greater facilities for washing. On new 1st Class sleeping cars, we have provided a stainless steel shower in the centre and that has proved very popular.

The President (in French). — There are still a certain number of points to clear up; there is first the question of the cleaning during the run raised by **Mr. CREM**.

Mr. Fiennes. — We are in agreement with **Mr. CREM**'s idea. I am just wondering

whether it should be cleaning on the journey or cleaning generally? »

Mr. Crem (in French). — I had in mind the case of coaches on an all-night run, which are very dirty in the morning. There are some clients who have given up rail travel on account of the filth of the coaches. This is a situation which must be improved.

Mr. Fiennes. — May I say that it is difficult to introduce a particular aspect of cleaning without referring to cleaning generally and therefore I would propose a new line reading as follows : « the general standard of cleaning with particular development of cleaning en route on long runs » to come after « restaurant services ».

May we now deal with the question of sleeper accommodation on new trains and other facilities. I think that the phrase proposed by **Mr. DAVIS** : « other facilities » is too broad. I think **Mr. DAVIS** intends washing, bath and the like; he does not intend, at all events, loud-speakers, or possibly secretaries, and, therefore, we could make the phrase a little more precise than he has proposed. »

Mr. Davis. — On many American trains, you also have music laid on to the compartment and that could be included in this phrase.

Mr. Fiennes. — That is surely what we do not want on night trains.

Mr. Davis. — I was speaking of long-distance trains — not specifically travel by night.

The point I would like to make is that

there are certain trains which provide both night and day accommodation in the same compartment.

The President (in French). — It is a very interesting remark, but I do not think it is essential to include it in the Summaries. There remains the idea put out on keeping to the type of coaches in international services.

Mr. Fiennes. — Is there perhaps an amendment proposed here?

Mr. Tribelhorn (in French). — There should be correspondence between the types of through coaches used, especially for international trains, with those agreed at the Timetable Conference.

Mr. Fiennes. — The idea, of course, is entirely right. How to introduce it into the text is difficult. It is, in fact, bad operating if the right type of coach is not in the train, and that is all that has to be said. That is an observation rather than an alteration to the text.

The President (in French). — It should be asked to the Administrations to work properly. But is that to be written in the official summaries of a Railway Congress?

I think everything has been considered concerning Summary No. 18. The alterations accepted give the following text :

« 18. The efforts of the railways to improve the standard of comfort offered as a rule should be directed to the following points :

« — riding qualities;

« — heating;

« — sound insulation;

« — forced ventilation and air conditioning;

« — lighting;

« — design and arrangement of the seats;

« — interior arrangement of coaches;

« — extension of sleeper accommodation on night trains;

« — restaurant services (restaurant cars, buffet-cars and trolley services);

« — general standard of cleaning with particular development of cleaning en route on long runs. »

Do you agree?

— *Adopted.*

Mr. Fiennes. — *Summary No. 19 :*

19. In the passenger timetables it is important to study the best user of the rolling stock; good user will make operation more economic, making it possible to deal with a larger amount of traffic with a given amount of stock.

Mr. Scherman. — From the English text, I get the impression that the time to study the user of the rolling stock is when the work of constructing the timetable is finished. I think that is too late. We must think of this when we are working out the timetable. I should therefore like this to read : « When constructing the passenger timetables ». I think that is the meaning of the French text.

Mr. Fiennes. — Mr. SCHERMAN is quite right. The French text is correct. There is a small change of emphasis in the

translation and I think the phrase « In the structure of the passenger timetables » would be better.

Mr. Baudier (in French). — Instead of rolling stock, could we not say « motor units and trailers. » Productive working must be established for both locomotives and carriages.

Mr. Fiennes. — This also is a matter of translation. In English « rolling stock » includes all traction.

The President (in French). — Rolling stock is a more general term; it includes both coaches and motor units.

Mr. Baudier (in French). — I wished to introduce this expression in order to draw the attention to the two points of view of this question.

The President (in French). — We could put the two expressions in parenthesis.

Mr. Fiennes. — Anything which makes the text stronger is acceptable.

The President (in French). — That is what we will do.

Mr. Harbour — Article 19 rightly reminds us of the importance of efficient rolling stock utilisation in the interest of operating economics in this matter of timetable compilation. It seems to me that of almost equal importance — and here I speak from experience in urban transport — to bear in mind the efficient utilisation of train staff, and if that were to commend itself to us all here, I would propose the addition of the words « and train crews » after the words « rolling

stock » in the third line of the English text. A consequential amendment would be necessary to the last line where rolling stock alone is mentioned.

Mr. Fiennes. — The Reporters think Mr. HARBOUR's proposal is an improvement.

The President (in French). — What is the suggested wording?

Mr. Fiennes. — The English version will read as follows : « In drawing up the passenger timetables, it is important to study the best user of the rolling stock (both motor units and coaches) and of the train crews; good user will make the operation more economic making it possible with a given rolling stock and train crews... »

Mr. Crem (in French). — If we said : « the good user of the equipment in use... making it possible with a given stock... »

Mr. Weckmann (in French). — As far as the train crews are concerned, when drawing up the timetables, we are impeded by the question of connections which already make it a difficult matter to prepare the timetables. The question of the staff is gone into afterwards, but never when discussing the timetables. I am speaking of the drivers and guards. The train staff can be changed without inconvenience during the run. As far as my Administration is concerned, staff questions are never decided when drawing up the timetables.

Mr. Crem (in French). — I might agree that in the particular cases of the International Timetables Conference, it is not possible to subordinate the study

of the timetables to the good user of the train crews. However, I am of the opinion that when drawing up the timetables the proper user of the train crews must be considered.

The President (in French). — Before the timetables are finally drawn up, sometimes they are gone over again with a view to the re-use of the train staff. The idea expressed is an interesting one.

Mr. Fiennes. — I think Mr. CREM and the President have said everything the Reporters would wish to say on this subject.

Mr. Weckman (in French). — We draw up the timetables in the usual way, and consider the question of the train crews later on.

The President (in French). — I think this exchange of opinions can now come to an end. Economies must always be looked for. Would everyone agree to the following text which is based on our discussions :

« 19. In drawing up the passenger timetables it is important to study the best user of the rolling stock and of the train crews; good user will make operation more economic, making it possible to deal with a larger amount of traffic with a given amount of stock (coaches and traction) and train crews. »

No comments?

— *Adopted.*

Mr. Fiennes. — *Summary No. 20 :*

20. Tourist traffic is growing to such an extent that the railways have to cope with considerable seasonal peak traffic. The

transport of these large numbers of passengers can only be carried out under reasonable conditions of comfort for the passengers and cost for the railway when the traffic is spread out. Although certain results have been obtained by the Administrations (in particular thanks to reduced rates and special trains outside peak hours), the object in view can only be fully attained with the collaboration of private organisations and above all the intervention of the public authorities.

Mr. Ström, Swedish State Railways (in French). — In Sweden, the passenger traffic is so great that it would be better to say instead of : « Tourist traffic is developing » « has developed ». But I will not insist on any modification.

Mr. Crem (in French). — To make the point clear, it should be stressed that social tourist travel has developed on account of the steps taken by the Public Authorities.

Mr. Cirillo (in French). — It is not only the social point of view which has caused tourist traffic to develop. Tourist traffic in general is becoming widespread. We might say : « Tourist traffic in general and particularly social tourist traffic. »

Mr. Baudier (in French). — The text of the summary says that the transport cannot be done in acceptable conditions of « expenses for the railways ». It seems to me that instead of « expenses » the term « savings » should be preferable.

The President (in French). — We might say : « ... of comfort for the clientele and of the cost price for the railways ».

Mr. Weckmann (in French). — Mention is made in the text of the intervention of private organisations and the Public

Authorities, but those concerned are overlooked. It is possible by propaganda amongst those concerned to encourage the spreading out of the traffic.

Mr. Fiennes. — On the first point « tourist traffic in general and social tourism », your Reporter does not understand the distinction. Could we have a brief observation explaining it.

Mr. Crem (in French). — Social tourist traffic affects a great proportion of the population. There are due holidays with pay, travel facilities such as free travel in certain countries for certain categories of workers, miners for example.

The President (in French). — It seems to me that the expression « social tourist traffic » is the right one; it is the one adopted by the I.R.U. (U.I.C.).

Mr. Crem (in French). — I would suggest saying : « Tourist traffic in general, and social tourist traffic in particular... »

Mr. Fiennes. — I agree.

The President (in French). — « prime cost » instead of « expenses. » I think we are all agreed. There is a third point : to act upon the Public Authorities and to act upon the passengers themselves, which would be even more effective.

Mr. Fiennes. — The idea is good. Could we not include that in the parenthesis and say : « thanks to reduced rates, etc... and to special measures which the railways might take. »

Mr. Crem (in French). — We are speaking of the results obtained, not those to be obtained.

Mr. Baudier (in French). — The summary mentions the intervention of Public Authorities, the co-operation of private organisations, but nowhere mention is made of publicity amongst those concerned. This, however, seems to me a very important point to reach the result aimed at.

Mr. Weckmann (in French). — What do you mean by « intervention with the Public Authorities », which authorities?

The President (in French). — Here is an example of a concrete result obtained thanks to the intervention of the Public Authorities : by means of the intervention of the Ministry of Labour, we have succeeded in getting the large motor firms of Renault, Citroën, Simca and their associates to agree not to send all their staff on holiday on one and the same date; the holidays have been staggered by one week from firm to firm; it has also been agreed that the holidays shall not start on a Friday evening but on the Thursday, which is a day when there is less traffic; this is an important success achieved after many years of talks.

Mr. Weckmann (in French). — It is difficult to get results.

The President (in French). — In the discussions with the workers, they were made to understand the importance of the matter. The results obtained have eased the peak traffic at the end of July and beginning of August.

These measures were not imposed by the Government, but were the result of negotiations between representatives of the S.N.C.F., the Ministry of Labour, the Ministry of Transport and of the firms and staff of the undertakings concerned.

Mr. Baudier (in French). — As an example of the intervention of Public Authorities, mention may also be made of the school reform with regard to the staggering of the holidays.

Mr. Carlier (in French). — In the meaning intended in the report, when we speak of the intervention of the Public Authorities, we do not really mean intervention on authoritarian lines but rather arbitration.

Mr. Crem (in French). — We might say : « the collaboration of the Public Authorities. »

The President (in French). — I think there are some countries where intervention is effective. This intervention may be authoritarian or may take some other form. But the word « intervention » is very suitable.

Mr. Fiennes. — So far, we have an amendment to the text in the first line. Coming further down, we have added the word « prime », and we have the final phrase left as it is. We have outstanding the point about publicity. Is not the idea of publicity embraced within the phrase « collaboration of private organisations and above all the intervention of the Public Authorities ». If we attempt to interpret the forms which the collaboration and intervention might take, we could specify a great number of measures.

Mr. Arkle. — May I make a suggestion about the words in brackets, which I think might meet the point which has been raised about publicity. As publicity is mainly a thing for which the railways are themselves responsible, I would like to suggest that the words in brackets should read : « in particular by offering reduced fares (fares is a better word than rates in English) and attractive and well advertised services outside the busy period ». By reduced fares one does draw traffic away from the peak periods, but even so, these approaches to outside bodies are still necessary. »

Mr. Du Plessis. — I would suggest the concluding paragraph might be altered to read :

« the object in view can only be fully attained by the collaboration of private organisations, efficient advertising and, above all, the intervention of appropriate public authorities. »

In South Africa, we get the support of the publicity organisations and also of the hotels by offering low tariffs during the off season. »

Mr. Fiennes. — The publicity campaign is surely necessary : first, with the private organisations, secondly, with Public Authorities, and thirdly, with the travelling public. Therefore I think, as a matter of drafting, it would be better to add a new sentence altogether to the paragraph to read : « An active advertising campaign is an integral part of these efforts. »

Mr. Discry (in French). — I suggest a modification in form. The parenthesis : « in particular thanks to... etc. » is in my opinion rather a nuisance. It seems

to me that it would be better to say : « If some Administrations have been able to obtain certain results thanks to reduced rates and special trains outside peak periods, the object in view... etc. »

Mr. Fiennes. — If we adopt that phrasing, by omitting the word « particularly » we should have to mention other methods of publicity which have already been carried out.

The President (in French). — I think we must add the words « in particular ».

Mr. Discry (in French). — Agreed.

The President (in French). — The text of Summary No. 20, including these modifications and additions which have been agreed upon, will therefore read as follows :

« 20. Tourist traffic in general and social tourism in particular is growing to such an extent that the railways have to cope with considerable seasonal peak traffic. The transport of these large numbers of passengers can only be carried out under reasonable conditions of comfort for the passengers and prime cost for the railway when the traffic is spread out. Although some Administrations have been able to obtain certain results (in particular thanks to reduced fares and special trains outside peak hours), the object in view can only be fully attained with the collaboration of private organisations and above all the intervention of the public authorities. An active advertising campaign is an integral part of these efforts »

I think that worded in this way, Summary No. 20 can be adopted. Do you agree?

— *Adopted.*

Mr. Fiennes. — *Summary No. 21 :*

21. The daily suburban traffic peaks of the great cities put the railways in the same difficulty.

The changeover from steam traction to electric traction allows the railway to meet further increases in traffic.

Certain railways report, however, cases in which the possibilities of the new techniques are soon exhausted in their turn. Only a spreading out of the peak traffic, again requiring the intervention of the Public Authorities, can then avoid the need for further heavy capital investment.

Mr. Langevin (in French). — The last paragraph seems to imply that it is not possible to do anything but spread out the peak traffic.

Spreading out the peak traffic brings difficult problems to the staff and may be going against the greater efficiency which is being sought after for the large urban centres; it is no small matter to vary by half an hour in the morning and half an hour in the evening the hours at which work starts and ends on an eight hour working day in the offices, shops and factories; this is something to think about.

From the technical point of view, improvements are constantly being made; I am going to mention some of them. We have used rolling stock with pneumatic tyres which has given us an increase of 16 % in the average speeds. In the case of suburban lines, it is important to reduce the time of the stops; we have therefore increased the number of doors per coach from two to four and even to six in the scheme for the Vincennes line. I would remind you that the use of tip up seats which are folded during the rush hours makes it possible to increase the capacity of the stock appreciably; we

have 24 such seats for every 24 seats. The width of the doors is also important. All the above improvements are important both on our urban lines and our suburban lines. To avoid bottlenecks at important centres, I think it is necessary to study connecting up the suburban lines in each direction. Such measures have been taken in Berlin; they are being taken in Madrid, and being studied in Paris and New York. Therefore, I suggest to alter the last paragraph, taking into account these remarks.

The President (in French). — Under these conditions, what would be the text of the third paragraph properly speaking?

Mr. Langevin (in French). — The wording would become : « Parallel to the study and application of all the new techniques, a spreading out of the peak traffic which would also require the intervention of the Public Authorities may then avoid the need for further extensive capital investments. »

Mr. Du Plessis. — May I make a suggestion. I would like the second paragraph altered as follows :

« The changeover from steam traction to electric traction *and the application of other improved methods* allow the railway... etc. »

Mr. Fiennes. — « It is, I think, implicit in these summaries that the changeover from steam to electric traction does, in fact, imply the application of new methods which the capacities and qualities of new forms of traction permit. »

Mr. Tribelhorn (in French). — In Summary No. 20, seasonal peaks are mentioned; in Summary No. 21, it is a question of daily peaks. But no mention is made at all of the week-end peaks. Could we not say in the first paragraph of Summary No. 21 : « Week-end peaks as well as daily traffic peaks... etc. »

The President (in French). — Fewer and fewer people are working on Saturdays. The traffic has partially changed over to Friday.

Mr. Tribelhorn (in French). — That was why I suggested : « The week-end traffic as well as the daily peaks. »

The President (in French). — At the moment only suburban traffic is being considered.

Mr. Tribelhorn (in French). — In Switzerland there are heavy traffic peaks at the end of the week.

The President (in French). — Peak traffic due to the development of tourism have been dealt with in Summary No. 20.

Mr. Fiennes. — That is perfectly true, but surely no country here is in such a state with weekend traffic that they require the same measures to deal with that as they do to deal with seasonal peak traffic.

The President (in French). — There are even some Administrations who issue cheap week-end tickets. Are you satisfied Mr. TRIBELHORN with the additional light thrown on this point, and do you now agree that the text should be left as it is?

Mr. Tribelhorn (in French). — Agreed.

Mr. Du Plessis. — I would like to mention that we have one further problem in South Africa and that is that we are forced to spend large sums of money on improving suburban services and providing additional track which does not pay for itself. If that is also the experience of certain other railways, I would like to suggest addition of the following words at the end of the paragraph :

« which in some cases do not give an adequate return on the capital invested. » That is an acute problem which we are having to face.

Mr. Langevin (in French). — At the end of the Summary, we could say : « ... avoid heavy and unprofitable capital investments. »

Mr. Du Plessis. — The traffic obtained does not cover the investments.

The President (in French). — That corresponds to « unprofitable ». We will therefore say : « ... to avoid heavy and unprofitable capital investments. » Summary No. 21 is therefore submitted to the Meeting with the following wording :

« 21. The daily suburban traffic peaks of the great cities put the railways in the same difficulty.

« The changeover from steam traction to electric traction allows the railway to meet further increases in traffic.

« Parallel with the study and application of all new techniques a spreading out of the peak traffic, again requiring the intervention of the Public Authorities,

can then avoid the need for further heavy and unprofitable capital investment. »

— *Adopted.*

Mr. Fiennes. — Mr. PRESIDENT, I believe we still have to decide about Summary No. 1. The Meeting asked us to get together with Mr. SCHERMAN in order to extend the text as desired. Here, Mr. PRESIDENT, is the text which Mr. SCHERMAN, Mr. CARLIER and myself have the honour of submitting to the Meeting :

« 1. A passenger service by rail is a great advantage for the population of every country and an absolute necessity for many. The habit of travelling is increasing. The services must be adapted to the development of the public demand, whilst being kept within the reasonable standards of sound management.

« In case where the development of the habit of travel is not translated into an increase in the traffic by rail, it is, possibly, the time to restore the situation by other methods, particularly by a forward policy in fares, before an increase in the service. »

The President (in French). — No comments?

— *Adopted.*

We have now discussed all the Summaries submitted. Does anyone of you, Gentlemen, wish to say anything about any of these Summaries?

The absence of any reply makes it clear, I think, that the Meeting considers the examination of Question 6 is completed.

At the end of these discussions which, thanks to the co-operation of you all,

it was a pleasure to preside over, in the name of the Meeting it is my pleasant duty to convey our warmest thanks to all those who have taken so much trouble.

The Reporters, Messrs. FIENNES and CARLIER had to deal with a very complex subject. As is the case with many operating problems, it is a priori difficult to find any general rules. They might have succumbed to the temptation of taking the easy path and merely reporting the evidence collected; they chose however a solution which meant hard work. After making a penetrating analysis of the copious replies received from the Administrations, they formulated a limited number of precise Summaries covering the more important results of experience and bring out directives of a general nature. They have fully succeeded, since indeed all we have had to do is to make certain precisions in their remarkable preliminary work. We thank them very warmly for having prepared the ground so well, and for having, during the discussions, replied with inexhaustible courtesy to the innumerable questions we asked them.

I am also glad to thank all the officials who have collaborated with me, discretely and efficiently in the work, not only during but also after the meetings.

And you also, the Delegates, I thank you for the unfailing attention with which

you have followed the discussions, for your fruitful collaboration in the elaboration of the final Summaries and for your courtesy.

Mr. Fiennes. — May I add two further words : I thank the Delegates for the improvements which they have offered to the Summaries, and I thank the PRESIDENT for the way in which he has guided the discussions and the firmness he has shown in safeguarding the work of the Reporters.

Mr. Scherman. — I must apologise for my frequent interventions, and thank the PRESIDENT and the REPORTERS for the kindness with which they have received my suggestions.

Mr. Crem (in French). — This distribution of well merited thanks, with which I wish to associate the Permanent Commission, would be incomplete if I did not express in the name of the whole Congress our gratitude to the PRESIDENT for the masterly way in which he has presided over these discussions; it is due to his competency, great authority and aimability that we have had the privilege of assisting at such a frank, definite and eminently fruitful discussion.

— The meeting ended at 12.30.

DISCUSSION AT THE PLENARY SESSION.

Meeting of the 7th October 1958.

PRESIDENT : Sr. D. AGUSTÍN PLANA.

GENERAL SECRETARIES : MESSRS. P. GHILAIN and J. PÉREZ POZUELO.

The President (in French). — We will now examine the Summaries relating to Question No. 6.

Mr. Ghilain, General Secretary read the Summaries adopted by the Section which were published in Nos. 4 and 6 of the *Daily Journal of the Congress*.

(The examination of these Summaries did not give rise to any comments).

The President (in French). — We can therefore consider the Summaries for Question 6 as ratified.

SUMMARIES.

« 1. A passenger service by rail is a
« great advantage for the population of
« every country and an absolute neces-
« sity for many. The habit of travelling
« is increasing. The services must be
« adapted to the development of the
« public demand, whilst being kept
« within the reasonable standards of
« sound management.

« In case where the development of
« the habit of travel is not translated
« into an increase in the traffic by rail,
« it is, possibly, the time to restore the
« situation by other methods, particu-

« larly by a forward policy in fares,
« before an increase in the service.

« 2. The principles on which a ra-
« tional and efficient passenger service
« is based can be summed up in the
« words : convenience, reliability, speed,
« comfort, and cheapness. Within the
« framework of these principles, the
« change to electric and Diesel traction
« is a favourable opportunity of re-or-
« ganising the services for the benefit of
« both the travelling public and the
« railway.

« 3. The capacity to work practically
« uninterrupted, the relative rareness
« of breakdowns in service, the great
« accuracy in running, the high capacity
« for acceleration and sustained speed,
« the ease with which multiple unit rakes
« can be made up, and their great clean-
« liness, higher thermic output, greater
« elasticity in the use of locomotives are
« the main advantages of the methods
« of Diesel and electric traction which
« allow of the greater application of the
« first principles above than is the case
« with steam traction.

« 4. As a journey is to a large extent
« a loss of time, one of the main objects
« of a train service is to minimise this

« loss, primarily by a judicious selection
« of the departure and arrival times,
« and by increasing the number of
« trains and the average speed.

« 5. The selection of the departure
« and arrival times of the trains must
« give priority to the following two
« objectives :

« — reduce the impact of the jour-
« ney on ordinary working hours, and
« consequently encourage night-time,
« evening or half-day travel;

« — avoid train arrivals and depar-
« tures between midnight and 6 a.m.

« 6. Consequently in the case of jour-
« neys lasting more than six hours, con-
« sidering in turn those routes over
« which the traffic justifies one, two,
« three, four... services a day, the prac-
« tice followed by the railways shows
« that it is desirable for the timetables
« to include in the order given the fol-
« lowing trains :

« — a night train leaving between
« 7 p.m. and midnight;

« — a day train leaving early in the
« morning (in the case of journeys tak-
« ing less than sixteen hours);

« — an afternoon train (in the case
« of journeys taking less than twelve
« hours);

« — one special high speed train at
« the time most convenient for those
« using it;

« — other trains at hours dictated
« more particularly by the special cha-
« racteristics of the traffic on the line.

« 7. If the journey takes less than six
« hours :

« — the night train will be replaced
« by an evening train;

« — the day trains will leave at hours
« so chosen that the whole journey can
« be made in half a working day or less,
« including a meal.

« 8. The choice between a train ser-
« vice organised in groups and conti-
« nuous services spaced out over the
« day depends upon many factors, in
« particular the length of the journey
« and the number of travellers; as the
« length of the journey decreases and
« the number of passengers increases,
« usually the Group services give way to
« Continuous services and in the end to
« Interval services in extreme cases.
« This evolution is facilitated by change-
« over in traction, and by the improve-
« ment of the railway equipment, par-
« ticularly by the installation of new
« tracks, by the installation of the most
« modern techniques, such as centralisa-
« tion of the control of points and the
« amalgamation of signal boxes.

« 9. The Group services are suitable
« for night services and for trains mak-
« ing important connections (with boat
« services in particular).

« 10. An Interval service loses many
« of its advantages for the passenger if
« the time between two successive trains
« is more than 2 hours.

« 11. The structure of intermediate
« stops depends on the needs of the
« clientele between :

« — the two terminal stations of the
« run;

« — the intermediate stations and the
« terminal stations;

« — the intermediate stations themselves;

« with due regard to the connections to
« be made.

« 12. If there is sufficient traffic, it
« is right to carry the greatest possible
« number of passengers between the
« terminals by non-stop trains.

« If there is not sufficient traffic to
« justify such trains, the need to provide
« a reasonable number of trains is the
« prevailing factor and intermediate
« stops will ensure that sufficient
« numbers use the trains.

« The changeover to electric and
« Diesel traction, by reducing loss of
« time due to stops, makes additional
« stops that one would have hesitated
« to make with steam traction more
« acceptable.

« 13. As stops during the night disturb the passengers, the number of
« stops made by night trains should be
« reduced to the minimum.

« 14. Reliability and punctuality are
« of the greatest importance. The timetables should not promise more than
« can be reliably performed.

« 15. Reduction in the journey time
« is an important factor in increasing
« and maintaining traffic, especially over
« long distances, and in the case of
« services by day.

« The changeover in methods of traction produces undoubted advantages
« in this connection, even if the maxi-

« mum speed allowed over the lines in
« question is not increased.

« Such an increase in the maximum
« speed should only be made after an
« economic study has been made to
« ascertain the costs it will involve and
« the advantages expected therefrom.

« Several Administrations report that
« the great increases in the average
« speed obtained in this way have been
« in general profitable.

« 16. The use of passenger trains for
« other traffics, in particular to speed
« up some of the goods traffic, is only
« acceptable to the extent that it does
« not interfere with punctuality and the
« structure of the passenger timetables.

« 17. Service stops must be cut down
« as much as possible, in particular :

« — on international services by
« making it the general practice to
« carry out customs and police checks
« during the run;

« — on services over lines with different systems of electrification, by
« using locomotives capable of running
« on different frequencies and voltages.

« 18. The efforts of the railways to
« improve the standard of comfort
« offered as a rule should be directed
« to the following points :

« — riding qualities;
« — heating;
« — sound insulation;
« — forced ventilation and air conditioning;
« — lighting;
« — design and arrangement of the
« seats;

« — interior arrangement of coaches;
« — extension of sleeper accommoda-
« tion on night trains;
« — restaurant services (restaurant
« cars, buffet-cars and trolley services);
« — general standard of cleaning
« with particular development of clean-
« ing en route on long runs.

« 19. In drawing up the passenger
« timetables it is important to study the
« best user of the rolling stock and of
« the train crews; good user will make
« operation more economic, making it
« possible to deal with a larger amount
« of traffic with a given amount of
« stock (coaches and traction) and train
« crews.

« 20. Tourist traffic in general and
« social tourism in particular is growing
« to such an extent that the railways
« have to cope with considerable sea-
« sonal peak traffic. The transport of
« these large numbers of passengers can
« only be carried out under reasonable
« conditions of comfort for the pas-

« sengers and prime cost for the rail-
« way when the traffic is spread out.
« Although some Administrations have
« been able to obtain certain results (in
« particular thanks to reduced fares and
« special trains outside peak hours), the
« object in view can only be fully at-
« tained with the collaboration of private
« organisations and above all the inter-
« vention of the public authorities. An
« active advertising campaign is an inte-
« gral part of these efforts.

« 21. The daily suburban traffic
« peaks of the great cities put the rail-
« ways in the same difficulty.

« The changeover from steam trac-
« tion to electric traction allows the rail-
« way to meet further increases in
« traffic.

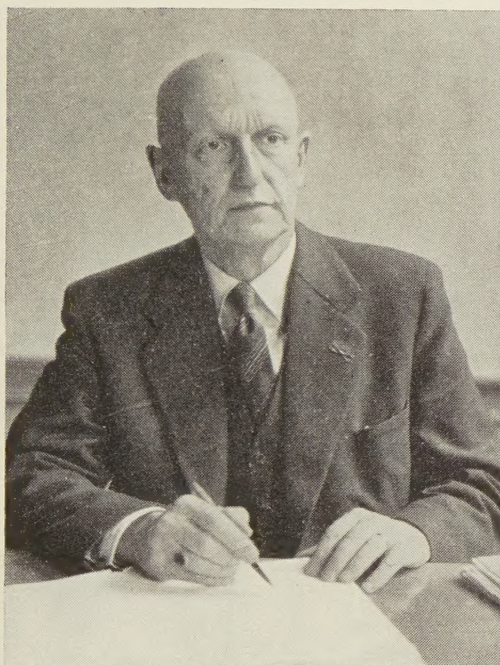
« Parallel with the study and ap-
« plication of all new techniques a
« spreading out of the peak traffic, again
« requiring the intervention of the Public
« Authorities, can then avoid the need
« for further heavy and unprofitable
« capital investment. »

OBITUARY.

G. H. DIJKMANS VAN GUNST,

Former General Manager of Transport, Ministry of Transport and Waterstaat (Holland).

Former Member of the Permanent Commission of the International Railway Congress Association.



We have learnt with the greatest regret of the death on the 6th February last at The Hague of Mr. G. H. DIJKMANS VAN GUNST, former General Manager of Transport in the Ministry of Transport and Waterstaat and former Member of the Permanent Commission of our Association.

Mr. DIJKMANS VAN GUNST was born at

Steenwijk, on the 14th June 1891. After being educated at The Hague gymnasium, he joined the Faculty of Law at the University of Leyden and obtained his Doctors degree in 1916. In 1918, he obtained the degree of Doctor of Political Science. In the same year, he entered the service of the P.T.T., where after several promotions, he was appointed Legal Adviser to this administration in 1933. In 1947, he joined the General Management of the P.T.T. In 1947 also, he was attached to the Ministry of Transport and Waterstaat where, carrying out the mission received from the then Minister of Transport, he drew up the basic scheme for the transport laws which came into force in 1954.

In 1954, Mr. DIJKMANS VAN GUNST was appointed General Manager of Transport. After his retirement in 1956, he remained attached to the Ministry of Transport and Waterstaat, and various special duties were entrusted to him.

In January 1958, he was appointed President of the « Nederlands Verkeersinstituut » (Netherlands Institute of Transport).

From 1948 onwards, Mr. DIJKMANS VAN GUNST frequently took part in international sessions or negotiations in the transport field.

From the start, he participated in the activities of the Inland Transport Com-

mittee of the European Economic Commission (Geneva).

He also took an active part in the preparation of the KAPTEYN report on the transport policy presented by the Assembly of the Coal and Steel Community.

His eminent services led to his nomination as Knight of the Netherlands Order of the Lion.

Mr. DIJKMANS VAN GUNST was appoint-

ed Member of the Permanent Commission of our Association in 1954.

In spite of his numerous activities, he always showed the greatest interest in the work of our Association, and will be cordially remembered by his colleagues on the Permanent Commission.

We wish to express our very sincere sympathy to his family.

The Executive Committee.

PRINTED IN BELGIUM

M. WEISSENBRUCH & Co. Ltd.
Printer to the King

(Manag. Dir.: P. de Weissenbruch,
238, chaussée de Vleurgat, XL)

Edit. responsable: P. Ghilain